WAVETEK

CALIBRATION AND SERVICING HANDBOOK: VOLUME 2

Model 4200

Autocal AC Standard

Component Lists and Servicing Diagrams

WAVETEK

CALIBRATION AND SERVICING HANDBOOK: VOLUME 2

Model 4200
Autocal AC Standard
Component Lists and Servicing Diagrams

© 1996 Wavetek Ltd.

This document contains information proprietary to Wavetek and is provided solely for instrument operation and maintenance. The information in this document may not be duplicated in any manner without the prior approval in writing from Wavetek.

Wavetek Ltd.
Hurricane Way,
Norwich Airport Industrial Estate
Norwich
Norfolk NR6 6JB
UK

Tel: 44 1603 404 824
Fax: 44 1603 483 670

WAVETEK is a trademark of Wavetek Wandel Goltermann, Inc. (WWG) and is used by Fluke under a transitional license agreement. Fluke is not affiliated with WWG.

Manual Revision 1
Manual Part Number 850058

Digitized by the Internet Archive
in 2025

https://archive.org/details/manualsplus_06055

SECTION 6 COMPONENT LISTS

Front PCB Assembly 400533
Digital PCB Assembly 400534
Analog Interface PCB Assembly 400570
Reference Divider PCB Assembly 400535
Reference PCB Assembly 400553
Output Control PCB Assembly 400550
Sine Source PCB Assembly 400446
AC PCB Assembly 400447
Current PCB Assembly 400555
Power AMP PCB Assembly 400450
Power Supply (Out-guard) Assembly 400561
Power Supply (In-Guard) PCB Assembly 400554
Power Supply (38V) PCB Assembly 400544
Power Amplifier Positive Heatsink Assembly 400538
Power Amplifier Negative Heatsink Assembly 400539
Power Supply Current Heatsink Assembly 400540
High Voltage PCB Assembly 400565
Mains Transformer Assembly 400541
L.F. Transformer Assembly 400458
H.F. Transformer Assembly 400578
Mother PCB Assembly 400532
Interconnection PCB Assembly 400439
Terminal Board Assembly 400634
Main Assembly 400529
Chassis Assembly 400530
Option Fitting Instructions 400603
Rear Panel Assembly 400531

DRAWING No.	CHK'D	
400533	DATE	2.7.85
	ECO	1958
	REVISION	3.0
	ISSUE	

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION
COMPONENT LAYOUT	480533	1	3.0
SCHEMATIC	430533	1	3.0
SCHEMATIC	430533	2	3.0
FUNCTIONAL TEST PROC.	460533/FT	1-3	3.0
FUNC. TEST TICK LIST	470533/FT	1	3.0

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APP'D
IL	MJD	
DATE 2.7.85	DATE 10.7.85	DATE 23.7.85

TITLE: 4200 FRONT PCB ASSY

DRAWING No. 400533 SHEET 1 OF 11

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000334	330k 5% ¼W CARBON	MULLARD	CR25	22
R2	000334	" " " "	"	"	—
R3	000334	" " " "	"	"	—
R4	000334	" " " "	"	"	—
R5	000334	" " " "	"	"	—
R6	000334	" " " "	"	"	—
R7	000334	" " " "	"	"	—
R8	000334	" " " "	"	"	—
R9	000334	" " " "	"	"	—
R10	000334	" " " "	"	"	—
R11	000334	" " " "	"	"	—
R12	000334	" " " "	"	"	—
R13	000334	" " " "	"	"	—
R14	000334	" " " "	"	"	—
R15	000334	" " " "	"	"	—
R16	000334	" " " "	"	"	—
R17	000334	" " " "	"	"	—
R18	000334	" " " "	"	"	—
R19	000334	" " " "	"	"	—
R20	000334	" " " "	"	"	—
R21	000334	" " " "	"	"	—
R22	000334	" " " "	"	"	—
R23	000102	1k " " "	"	"	11

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS.	1	2	3
E.C.O.	—	1827	1814
DATE	18.11.83	14.5.84	16-5-85
CHKD	MJD	MD	MD

DATE 7.3.84

DRAWN IL

CHECKED MJD

APPROVED B Thorne

DATE 23.3.84.

datron ELECTRONICS LTD

TITLE 4200 FRONT PCB ASSY.

DRAWING NUMBER 400533

SHEET 2 OF 11

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	000102	1k 5% 1/4W CARBON	MULLARD	CR25	–
R25	000102	1k " " "	"	"	–
R26	000104	100k " " "	"	"	3
R27	000102	1k " " "	"	"	–
R28	000102	1k " " "	"	"	–
R29	000102	1k " " "	"	"	–
R30	000102	1k " " "	"	"	–
R31	000102	1k " " "	"	"	–
R32	000102	1k " " "	"	"	–
R33	000102	1k " " "	"	"	–
R34	000102	1k " " "	"	"	–
R35	000103	10k " " "	"	"	5
R36	000103	10k " " "	"	"	–
R37	000103	10k " " "	"	"	–
R38	000103	10k " " "	"	"	–
R39	000472	4k7 " " "	"	"	6
R40	000688	6R8 " " "	"	"	8
R41	000688	6R8 " " "	"	"	–
R42	000688	6R8 " " "	"	"	–
R43	000272	2k7 " " "	"	"	18
R44	000272	2k7 " " "	"	"	–
R45	000472	4k7 " " "	"	"	–
R46	000272	2k7 " " "	"	"	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

INS.													
E.C.O.													
DATE													
CHKD.													

DATE 7.3.84 | DRAWN IL | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 FRONT PCB. ASSY.

DRAWING NUMBER 400533 | SHEET 3 OF 11

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R47	000182	1k8 5% 1/4W CARBON	MULLARD	CR25	2
R48	000272	2k7 " " "	"	"	–
R49	000272	2k7 " " "	"	"	–
R50	000222	2k2 " " "	"	"	2
R51	000222	2k2 " " "	"	"	–
R52	000272	2k7 " " "	"	"	–
R53	000272	2k7 " " "	"	"	–
R54	000472	4k7 " " "	"	"	–
R55	000272	2k7 " " "	"	"	–
R56	000272	2k7 " " "	"	"	–
R57	000272	2k7 " " "	"	"	–
R58	000182	1k8 " " "	"	"	–
R59	000272	2k7 " " "	"	"	–
R60	000272	2k7 " " "	"	"	–
R61	000272	2k7 " " "	"	"	–
R62	000272	2k7 " " "	"	"	–
R63	000272	2k7 " " "	"	"	–
R64	000272	2k7 " " "	"	"	–
R65	000272	2k7 " " "	"	"	–
R66	000272	2k7 " " "	"	"	–
R67	000688	6R8 " " "	"	"	–
R68	000688	6R8 " " "	"	"	–
R69	000688	6R8 " " "	"	"	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

INS.													
E.C.O.													
DATE													
CHKD.													

DATE 7.3.84 | DRAWN IL | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 FRONT PCB. ASSY

DRAWING NUMBER 400533 | SHEET 4 OF 11

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R70	000688	6R8 5% ¼W CARBON	MULLARD	CR25	—
R71	000688	6R8 " " "	"	"	—
R72	000565	56k " " "	"	"	1
R73, R74, R75	000472	4k7 " " "	"	"	—
R76	000103	10k " " "	"	"	—
R77, R78	000104	100k " " "	"	"	—
AN1. AN2	090017	100k x 7 2% NETWORK	BECKMAN	L08-1- R100k	2
AN3. AN4	090041	4k7 x 7 2% NETWORK	BECKMAN	L08-1- R4k7	2
AN5. AN6	090121	100k x 8 2% NETWORK	BECKMAN	L09-1- R100k	2
C1	150002	10µF 20% 16V DIP TANT	UNION CARBIDE	K10E16	2
C2	104026	47nF $^{+50}_{-20}$ % 50V CER DISC	SIEMENS	B37449	3
C3	104026	47nF $^{+50}_{-20}$ % 50V CER DISC	SIEMENS	B37449	—
C4	150001	22µF 20% 16V DIP TANT	UNION CARBIDE	K22E16	1
C5	104026	47nF $^{+50}_{-20}$ % 50V CER DISC	SIEMENS	B37449	—
C6		NOT USED			—
C7		NOT USED			—
C8	110013	100nF 20% 250V POLYESTER	MULLARD	C280AEP100k	19
C9	110013	" " " "	"	"	—
C10	110013	" " " "	"	"	—
C11	110013	" " " "	"	"	—
C12	110013	" " " "	"	"	—

NOTES

SEE SHEET 2 FOR LATEST ISSUE

		DATE 7.3.84	datron ELECTRONICS LTD
		DRAWN	TITLE 4200 FRONT PCB ASSY
		CHECKED	
		APPROVED	
		DATE	DRAWING NUMBER 400533 — SHEET 5 OF 11

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
C13	110013	100nF 20% 250V POLYESTER	MULLARD	C280AEP100k	—
C14	110013	" " " "	"	"	—
C15	110013	" " " "	"	"	—
C16	110013	" " " "	"	"	—
C17	110013	" " " "	"	"	—
C18	110013	" " " "	"	"	—
C19	110013	" " " "	"	"	—
C20	110013	" " " "	"	"	—
C21	110013	" " " "	"	"	—
C22	110013	" " " "	"	"	—
C23	110013	" " " "	"	"	—
C24	110013	" " " "	"	"	—
C25	110013	" " " "	"	"	—
C26	110013	" " " "	"	"	—
C27	150002	10µF 20% 16V DIP TANT	UNION CARBIDE	K10E16	—
C28	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	K1R035	1
D1	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	18
D2	200001	" " " "	"	"	—
D3	200001	" " " "	"	"	—
D4	200001	" " " "	"	"	—
D5	200001	" " " "	"	"	—
D6	200001	" " " "	"	"	—
D7	200001	" " " "	"	"	—

NOTES

SEE SHEET 2 FOR LATEST ISSUE

		DATE 7.3.84	datron ELECTRONICS LTD
		DRAWN	TITLE 4200 FRONT PCB ASSY
		CHECKED	
		APPROVED	
		DATE	DRAWING NUMBER 400533 — SHEET 6 OF 11

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
D8	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	—
D9	200001	" " " " "	"	"	—
D10	200001	" " " " "	"	"	—
D11	200001	" " " " "	"	"	—
D12	200001	" " " " "	"	"	—
D13	200001	" " " " "	"	"	—
D14	200001	" " " " "	"	"	—
D15	200001	" " " " "	"	"	—
D16	200001	" " " " "	"	"	—
D17	213005	75V 1/2W ZENER	MOTOROLA	BZX79C75	1
D18	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	—
D19	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	—
D20	213006	5V1 5W ZENER	UNITRODE	TVS 505	1
Q1		NOT USED			—
Q2	240009	Si NPN TRANSISTOR	NATIONAL	MPSL01 / TO18	18
Q3	240009	" " "	"	"	—
Q4	240009	" " "	"	"	—
Q5	240009	" " "	"	"	—
Q6	240009	" " "	"	"	—
Q7	240009	" " "	"	"	—
Q8	240009	" " "	"	"	—

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O													
DATE													
CHKD													

DATE 7.3.84

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 FRONT PCB ASSY

DRAWING NUMBER 400533

SHEET 7 OF 11

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q9	240009	Si NPN TRANSISTOR	NATIONAL	MPSL01/TO18	—
Q10	250009	Si. PNP. TRANSISTOR	NATIONAL	2N5401/TO18	11
Q11	250009	" " "	"	"	—
Q12	250009	" " "	"	"	—
Q13	250009	" " "	"	"	—
Q14	250009	" " "	"	"	—
Q15	250009	" " "	"	"	—
Q16	250009	" " "	"	"	—
Q17	250009	" " "	"	"	—
Q18	250009	" " "	"	"	—
Q19	250009	" " "	"	"	—
Q20	250009	" " "	"	"	—
Q21	240025	Si NPN TRANSISTOR	"	MPSA13	4
Q22	240025	" " "	"	"	—
Q23	240025	" " "	"	"	—
Q24	240025	" " "	"	"	—
Q25	250011	Si PNP TRANSISTOR	"	BC327/TO18	8
Q26	250011	" " "	"	"	—
Q27	250011	" " "	"	"	—
Q28	250011	" " "	"	"	—
Q29	250011	" " "	"	"	—
Q30	250011	" " "	"	"	—
Q31	250011	" " "	"	"	—

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O													
DATE													
CHKD													

DATE 7.3.84

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 FRONT PCB. ASSY.

DRAWING NUMBER 400533

SHEET 8 OF 11

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
Q32	250011	Si PNP TRANSISTOR	NATIONAL	BC327/TO18	–
Q33	240009	Si NPN TRANSISTOR	"	MPSL01/TO18	–
Q34	240009	" " "	"	"	–
Q35	240009	" " "	"	"	–
Q36	240009	" " "	"	"	–
Q37	240009	" " "	"	"	–
Q38	240009	" " "	"	"	–
Q39	240009	" " "	"	"	–
Q40	240009	" " "	"	"	–
Q41	240009	" " "	"	"	–
Q42	240009	" " "	"	"	–
M1	280023	QUAD 2-I/P NOR GATE	MOTOROLA	MC14001BCP	1
M2	260005	5V 1A REGULATOR	MOTOROLA	MC7805CP	1
M3	280043	4 BIT LATCH/4 TO 16 LINE DECODER	MOTOROLA	MC14515BCP	1
M4	280090	DUAL BINARY 1 of 4 DECODER	MOTOROLA	MC14555BCP	1
M5	270071	DUAL 1 of 4 DECODER LS	NATIONAL	DM74LS156N	1
M6	280103	PROGRAMMABLE KEYBOARD/DISP	INTEL	8279-5	1

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 7.3.84 | DRAWN | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 FRONT PCB ASSY

DRAWING NUMBER 400533 | SHEET 9 OF 11

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
S1-S12, S14-S25, S27	700079	KEYBOARD ½ SWITCH. BLACK	NSF	K12/HALF KEY. BLACK	26
S29-S43	700061	KEYBOARD SWITCH RED LED.	SCHADOW	SRL-RED LED	22
S28, S44, S45	700062	KEYBOARD SWITCH GREEN LED	SCHADOW	SRL-GREEN LED.	3
S46, S47, S49, S50 S52-S54	700061	KEYBOARD SWITCH. RED LED	SCHADOW	SRL-RED LED	–
S56	700079	KEYBOARD ½ SWITCH. BLACK	NSF	K12/HALF KEY. BLACK	–
	410144-9	PCB			1
J1	604060	24+24 WAY .1" PCB. PLUG GOLD	AMP	2-825440-4	3
	605098	40 PIN DIL LOW PROFILE SKT	CAMBION	703-4340-01-06-00	1
	605060/L	14 WAY DIL " " "			1
	605061/L	16 WAY DIL " " "			2
	605097	24 WAY DIL " " "	CAMBION	703-4324-01-06-00	1
	612023	STANDOFF M2.5x4 LG. BRASS ¼ HEX	CAMBION	350-5181-22-07	2
	800017-3	8½ DIGIT DISPLAY WITH LEGEND	DALE	SEE DRG.	2
	920096	BUZZER PIEZOELECTRIC	TOKO	PB2720	1
	620003	SOLDER PCB TERMINAL LUG	HARWIN	H210SA	2

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 7.3.84 | DRAWN | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 FRONT PCB ASSY

DRAWING NUMBER 400533 | SHEET 10 OF 11

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	611054	M2×6mm SLOT CSK STEEL	ZN PL		2
	611076	M3×6mm SLOT PAN HEAD.	ZN PL.		1
	613005	M3 INT. SHAKEPROOF			1
	613026	M2 WASHER STEEL ZN PL			2
	613027	M2 INT SHAKEPROOF			2
	615002	M3 FULL NUT STEEL ZN PL			1
	615016	M2 FULL NUT STEEL ZN PL			2
	620007	TEST POINT TERMINAL	MICROVAR	C30	9
	630029	TAPE DOUBLE SIDED 1/4" × 1/32"	3M	4032	150mm

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS												
ECO												
DATE												
CHKD												

DATE 7.3.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 FRONT PCB ASSY

DRAWING NUMBER 400533 SHEET 11 OF 11

DRAWING No. 400534

	CHK'D	DATE	ECO	REVISION	ISSUE
	MJD	4-7-85	1958	8.0	
	MJD	3-9-85	1945	8.1	
	MJD	29.11.85	2063	8.2	
	MJD	13.1.86	2090	9.0	

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION
COMP. LAYOUT.	480534	1	8.0 / 8.1 / 9.0
SCHEMATIC	430534	1	8.0 / 9.0
SCHEMATIC	430534	2	8.0 / 8.1 / 9.0
SCHEMATIC	430534	3	8.0 / 9.0
SCHEMATIC	430534	4	8.0 / 8.0 / 9.0
SCHEMATIC	430534	5	8.0 / 9.0
FUNCTIONAL TEST PROC.	460534/FT	1-7	8.0 / 9.0
FUNCT-TEST TICK LIST	470534/FT	1	8.0 / 9.0

NOTES: ☐ INDICATES NO CHANGE TO DOCS. AT ISSUE LEVEL CHANGE

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APP'D
B. JACKSON	MJD	
DATE 4-7-85.	DATE 10.7.85	DATE 23.7.85

TITLE 4200 DIGITAL PCB ASSY

DRAWING No. 400534 SHEET 1 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000332	3k3 5% 1/4W CARBON	MULLARD	CR25	3
R2	000472	4k7 " " "	"	"	11
R3	000472	4k7 " " "	"	"	—
R4	000472	4k7 " " "	"	"	—
R5	000472	4k7 " " "	"	"	—
R6	000103	10k " " "	"	"	5
R7	000104	100k " " "	"	"	9
R8	000122	1k2 " " "	"	"	2
R9	000104	100k " " "	"	"	—
R10	000104	100k " " "	"	"	—
R11	000103	10k " " "	"	"	—
R12	000472	4k7 " " "	"	"	—
R13	000472	4k7 " " "	"	"	—
R14	000561	560R " " "	"	"	2
R15	000104	100k " " "	"	"	—
R16	000182	1k8 " " "	"	"	1
R17	014751	4k75 1% 1/8W 50ppm MF	HOLCO	H8C	1
R18	000122	1k2 5% 1/4W CARBON	MULLARD	CR25	—
R19	012491	2k49 1% 1/8W 50ppm MF	HOLCO	H8C	1
R20	000102	1k 5% 1/4W CARBON	MULLARD	CR25	21
R21	000472	4k7 " " "	"	"	—
R22	000223	22k " " "	"	"	1
R23	000103	10k " " "	"	"	—

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4	5	6	7	8
ECO	—	1679	1727 1737	1763	1780	1847	1860	1892
DATE	25.11.83	25.7.84	18.10.84	23.11.84	2.1.85	19.2.85	27.3.85	15.5.85
CHKD	MJD	MJD	MJD	MJD	MJD	MJD	MJD	MJD

DATE 5.3.84 DRAWN IL CHECKED MJD APPROVED MJD DATE 9.3.84

datron ELECTRONICS LTD

TITLE 4200 DIGITAL PCB. ASSY.

DRAWING NUMBER 400534 SHEET 2 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R24	000332	3k3 5% 1/4W CARBON	MULLARD	CR25	—
R25	011002	10kΩ 1% 1/8W 50ppm MF	HOLCO	H8C	2
R26	000104	100k 5% 1/4W CARBON	MULLARD	CR25	—
R27	011002	10kΩ 1% 1/8W 50ppm MF	HOLCO	H8C	—
R28	000471	470R 5% 1/4W CARBON	MULLARD	CR25	3
R29	000104	100k " " "	"	"	—
R30	000472	4k7 " " "	"	"	—
R31	000102	1k " " "	"	"	—
R32	000104	100k " " "	"	"	—
R33	000102	1k " " "	"	"	—
R34	000102	1k " " "	"	"	—
R35	000102	1k " " "	"	"	—
R36	000102	1k " " "	"	"	—
R37	000102	1k " " "	"	"	—
R38	000102	1k " " "	"	"	—
R39	000102	1k " " "	"	"	—
R40	000102	1k " " "	"	"	—
R41	000102	1k " " "	"	"	—
R42	000103	10k " " "	"	"	—
R43	000102	1k " " "	"	"	—
R44	000102	1k " " "	"	"	—
R45	000102	1k " " "	"	"	—
R46	000102	1k " " "	"	"	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

REV													
ECO													
DATE													
CHKD													

DATE 5.3.84
DRAWN IL.
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200. DIGITAL PCB. ASSY.

DRAWING NUMBER 400534 SHEET 3 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R47	000102	1k 5% 1/4W CARBON	MULLARD	CR25	—
R48	000102	1k " " "	"	"	—
R49	000102	1k " " "	"	"	—
R50	000102	1k " " "	"	"	—
R51	000102	1k " " "	"	"	—
R52	000472	4k7 " " "	"	"	—
R53	000104	100k " " "	"	"	—
R54	000104	100k " " "	"	"	—
R55	000103	10k " " "	"	"	—
R56	000471	470R " " "	"	"	—
R57	000471	470R " " "	"	"	—
R58	000102	1k " " "	"	"	—
R59	000391	390R " " "	"	"	1
R60	000472	4k7 " " "	"	"	—
R61	000472	4k7 " " "	"	"	—
R62	000561	560R " " "	"	"	—
R63		NOT USED			—
R64	000332	3k3 " " "	"	"	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

REV													
ECO													
DATE													
CHKD													

DATE 5.3.84
DRAWN IL.
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 DIGITAL PCB. ASSY.

DRAWING NUMBER 400534 SHEET 4 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
AN1	090050	3k3 x7 2% NETWORK	BECKMAN	764-1-R3k3	1
AN2	090017	100k x7 2% NETWORK	BECKMAN	764-1-R100k	1
AN3	090046	10k x7 2% NETWORK	BECKMAN	764-1-R10k	2
AN4	090046	10k x7 2% NETWORK	BECKMAN	764-1-R10k	—
AN5	090085	12k x8 2% NETWORK	AB	761-3-12k	1
C1	150002	10µF 20% 16V DIP TANT	UNION CARBIDE	K10E16	11
C2	150002	10µF 20% 16V DIP TANT	UNION CARBIDE	K10E16	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS															
E.C.O.															
DATE															
CHKD															

DATE 5.3.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 DIGITAL PCB ASSY

DRAWING NUMBER 400534 SHEET 5 OF 12

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy.
C3	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	14
C4	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C5	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C6	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C7	102681	680pF 10% 500V CER DISC	ITT	CD10	1
C8	150016	1µF 20% 35V DIP TANT.	UNION CARBIDE	K1R035	3
C9	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C10	150002	10µF 20% 16V DIP TANT.	UNION CARBIDE	K10E16	—
C11	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C12	150002	10µF 20% 16V DIP TANT.	UNION CARBIDE	K10E16	—
C13	150002	10µF 20% 16V DIP TANT.	UNION CARBIDE	K10E16	—
C14	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C15	150002	10µF 20% 16V DIP TANT.	UNION CARBIDE	K10E16	—
C16	102102	1nF 10% 500V CER DISC	ITT	CD10	1
C17	150002	10µF 20% 16V DIP TANT	UNION CARBIDE	K10E16	—
C18	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	K1R035	—
C19	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C20	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C21	150002	10µF 20% 16V DIP TANT.	UNION CARBIDE	K10E16	—
C22	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C23	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C24	150002	10µF 20% 16V DIP TANT	UNION CARBIDE	K10E16	—
C25	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS															
E.C.O.															
DATE															
CHKD															

DATE 5.3.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200. DIGITAL PCB ASSY.

DRAWING NUMBER 400534 SHEET 6 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
C26	101103	10nF 25% 250V CER DISC	ITT	CD10	2
C27	104026	47nF +50 -20 % 50V CER DISC	SIEMENS	B37449	–
C28	150006	4μ7F 20% 16V DIP TANT	UNION CARBIDE	K4R7E16	1
C29	150016	1μF 20% 35V DIP TANT	UNION CARBIDE	K1R035	–
C30	150024	47μF 20% 16V DIP TANT	UNION CARBIDE	K47E16	1
C31	101103	10nF 25% 250V CER DISC	ITT	CD10	–
C32	104026	47nF +50 -20 % 50V CER DISC	SIEMENS	B37449	–
C33	150002	10μF 20% 16V DIP TANT	UNION CARBIDE	K10E16	–
C34	150002	10μF 20% 16V DIP TANT	UNION CARBIDE	K10E16	–
D1	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	6
D2	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D3	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D4	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D5	210047	4V7 400mW ZENER	MULLARD	BZY88C4V7	1
D6	214012	2V45 30ppm ZENER	FERRANTI	ZN458	1
D7	220010	Si HOT CARRIER DIODE	H.P.	HSCH1001 / IN6263	1
D8	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D9	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 5.3.84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200. DIGITAL PCB ASS

DRAWING NUMBER 400534

SHEET 7 OF 12

SW. 1164

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D10	213006	5V SW ZENER	UNITRODE	TVS505	1
Q1	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	2
Q2	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	–
Q3	230031	N-CHAN DUAL JFET	TELEDYNE	SU2656M	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 5.3.84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 DIGITAL PCB ASSY

DRAWING NUMBER 400534

SHEET 8 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M1	280024	TRI-STATE HEX. NON-INV. BUFFER	MOTOROLA	MC14503 BCP	4
M2	280024	TRI-STATE HEX. NON-INV. BUFFER	MOTOROLA	MC14503 BCP	–
M3	290122-1	74S188 PROM PROGRAMMED	DATRON (SEE DRG)	SN74S188N (BLUE)	1
M4	270056	8 I/P NAND LS	NATIONAL	DM74LS30N	1
M5	270048	QUAD 2 I/P NAND LS	NATIONAL	DM74LS00N	4
M6	270050	HEX. INVERTER	NATIONAL	74LS04	2
M7	280008	QUAD 2 I/P 'NAND' GATE	MOTOROLA	MC14011 BCP	2
M8	280011	DUAL D FLIP-FLOP	MOTOROLA	MC14013BCP	1
M9	280102	14 BIT BINARY COUNTER	MULLARD	HEF4020BP	1
M10	280091	UN-BUFFERED TRIPLE 3 I/P NAND	MOTOROLA	MC14023UBCP	1
M11	220015	5kV OPTO ISOLATOR	MOTOROLA	MOC1005	2
M12	280077	HEX. INVERTER	MOTOROLA	MC14572BCP	1
M13	280033	8-CHAN DATA SELECTOR	MOTOROLA	MC14512 BCP	1
M14	280015	QUAD LATCH	MOTOROLA	MC14076 BCP	2
M15	280015	QUAD LATCH	MOTOROLA	MC14076 BCP	–
M16	280062	8-BIT STATIC RAM	MOTOROLA	MC6810A	1
M17	270048	QUAD 2 I/P NAND GATE	NATIONAL	74LS00	–
M18		NOT FITTED			–
M19	290124-12	2764 EPROM PROGRAMMED	DATRON	SEE DRG.	1
M20	290125-12	2764 EPROM PROGRAMMED	DATRON	SEE DRG.	1
M21	290126-12	2764 EPROM PROGRAMMED	DATRON	SEE DRG.	1
M22	280107	2k x 8 STATIC RAM	HITACHI	HM6116P-4	1
M23	280117	2k x 8 STATIC RAM LP	FUJITSU	MB8417-25	1

NOTES.

DATE 5.3.84	datron ELECTRONICS LTD	
DR. NAME IL.	TITLE 4200 DIGITAL PCB. ASSY.	
CHECKED		
APPROVED		
DATE	DRAWING NUMBER 400534	SHEET 9 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M24	270058	DUAL 2 TO 4 LINE DEMUX LS	NATIONAL	DM74LS155N	3
M25	270075	DUAL D FLIP-FLOP LS	NATIONAL	DM74LS74N	1
M26		NOT FITTED			–
M27		NOT USED			–
M28	260043	358 DUAL OP. AMP	NATIONAL	LM358N	1
M29	280064	IEEE 488 INTERFACE CHIP	MOTOROLA	MC68488P	1
M30	280005	TRIPLE GATE	MOTOROLA	MC14501 BCP	1
M31	270045	QUAD 2 TO 1 LINE MUX LS	NATIONAL	DM74LS157N	1
M32	280092	DUAL 4-BIT LATCH	MOTOROLA	MC14508 BCP	1
M33	270048	QUAD 2 I/P NAND LS	NATIONAL	DM74LS00N	–
M34	280087	MICRO-PROCESSOR CHIP	MOTOROLA	MC6802	1
M35	270057	DUAL J-K FLIP-FLOP LS	NATIONAL	DM74LS76N	1
M36	280024	TRI-STATE HEX. NON-INV. BUFFER	MOTOROLA	MC14503 BCP	–
M37	270077	TRI-STATE HEX. BUFFER LS	NATIONAL	DM74LS367	1
M38		NOT USED			–
M39	220015	5kV OPTO ISOLATOR	MOTOROLA	MOC1005	–
M40	280086	BI-DIRECTIONAL BUS TRANSCEIVER	MOTOROLA	MC3447	2
M41	280059	DUAL BINARY UP COUNTER	MOTOROLA	MC14520 BCP	1
M42	280085	QUAD 2 I/P 'AND' GATE	MOTOROLA	MC14081 BCP	4
M43	280085	QUAD 2 I/P 'AND' GATE	MOTOROLA	MC14081 BCP	–
M44	280008	QUAD 2 I/P 'NAND' GATE	MOTOROLA	MC14011 BCP	–
M45	280085	QUAD 2 I/P 'AND' GATE	MOTOROLA	MC14081 BCP	–
M46	280085	QUAD 2 I/P 'AND' GATE	MOTOROLA	MC14081 BCP	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 5.3.84	datron ELECTRONICS LTD	
DR. NAME IL.	TITLE 4200 DIGITAL PCB. ASSY.	
CHECKED		
APPROVED		
DATE	DRAWING NUMBER 400534	SHEET 10 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M47	280024	TRI-STATE HEX NON-INV BUFFER	MOTOROLA	MC14503 BCP	–
M48	280086	BI-DIRECTIONAL BUS TRANSCEIVER	MOTOROLA	MC3447	–
M49	270048	QUAD 2 I/P NAND LS	NATIONAL	DM74LS00N	–
M50	270050	HEX. INVERTER	NATIONAL	74LS04	–
M51	270058	DUAL 2 TO 4 LINE DEMUX. LS	NATIONAL	DM74LS155N	–
M52	270058	DUAL 2 TO 4 LINE DE MUX. LS	NATIONAL	DM74LS155N	–
M53	280068	DUAL PRECISION MONOSTABLE	MOTOROLA	MC14538 BCP	1
	605059/A	8 WAY DIL SOCKET			1
	410248-1A	PCB			1
TPs	540002	22 SWG BTC WIRE			A/R
JL1	604037	PROGRAMMING CLASS 160 PLUG	AUGAT	8136-47SG-8	1
	605050/A	40 WAY DIL LOW PROFILE SKT.			2
	605060/A	14 WAY DIL SOCKET			16
	605061/A	16 WAY DIL SOCKET			20
	605064/A	24 WAY DIL. SOCKET			7
	605066/A	6 WAY DIL SOCKET			2
	620003	SOLDER PCB. TERMINAL LUG	HARWIN	H210SA	1
	630098	COMPONENT CLIP	RICHCO	KKU-8	1
	630112	CIRCUIT BOARD EJECTOR	RICHCO	CBE BLACK	2
S1	700065	KEYSWITCH 1PIW MOMENT.	LIPA & ISOSTAT	D6	1
	620007	TEST POINT TERMINAL	MICROVAR	C30	21

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

RB														
ECO														
DATE														
CHKD														

DATE 5.3.84 | DRAWN IL | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE: 4200 DIGITAL PCB. ASSY.

DRAWING NUMBER 400534 | SHEET 11 OF 12

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	618004	MOUNTING PAD TO18	JERMYN	TO18-008D	1
	590004	SLEEVE. PTFE	HELLERMAN ELECTRIC	FE10	A/R
	605065/L	28 WAY DIL SOCKET			3

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

RB														
ECO														
DATE														
CHKD														

DATE 5.3.84 | DRAWN IL | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE: 4200 DIGITAL PCB ASSY.

DRAWING NUMBER 400534 | SHEET 12 OF 12

DRAWING No. 400570

	CHK'D	DATE	ECO	REVISION	ISSUE
	MJO	5-7-85	1956	1.0	
	MJO	12.12.85	2076	1.1	

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE . REVISION	
COMP. LAYOUT.	480570	1	1.0	1.1
SCHEMATIC	430570	1	1.0	
SCHEMATIC	430570	2	1.0	
SCHEMATIC	430570	3	1.0	
SCHEMATIC	430570	4	1.0	1.1
FUNCTIONAL TEST PROC.	460570/FT	1-15	1.0	
FUNCT. TEST TICK LIST	470570/FT	1	1.0	

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APP'D	TITLE	DRAWING No.
B. JACKSON	MJO		4200	400570
DATE 5 JULY 85	DATE 10.7.85	DATE 23.7.85	ANALOG. INTERFACE ASSY	SHEET 1 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
R1		NOT USED			—
R2		NOT USED			—
R3		NOT USED			—
R4		NOT USED			—
R5	000472	4k7 5% ¼W CARBON	MULLARD	CR25	3
R6	000472	4k7 5% ¼W CARBON	MULLARD	CR25	—
R7	000474	470k 5% ¼W CARBON	MULLARD	CR25	2
R8		NOT FITTED			—
R9		NOT FITTED			—
R10	000474	470k 5% ¼W CARBON	MULLARD	CR25	—
R11		NOT FITTED			—
R12		NOT FITTED			—
R13		NOT FITTED			—
R14		NOT FITTED			—
R15		NOT FITTED			—
R16		NOT FITTED			3
R17		NOT FITTED			—
R18		NOT FITTED			—
R19	000821	820R 5% ¼W CARBON	MULLARD	CR25	1
R20	000471	470R 5% ¼W CARBON	MULLARD	CR25	6
R21	000471	470R 5% ¼W CARBON	MULLARD	CR25	—
R22	000471	470R 5% ¼W CARBON	MULLARD	CR25	—
R23	000471	470R 5% ¼W CARBON	MULLARD	CR25	—

NOTES

SEE SHEET 1 FOR LATEST ISSUE

ISSUE	1
ECO	RELEASED
DATE	31 5 84
CHKD	

DATE	23 · 5 · 84
DR'AWN	JR
CHECK	RJC
APPROVED	
DATE	31.5.84

datron ELECTRONICS LTD

TITLE 4200. ANALOG INTERFACE PCB. ASSY.

DRAWING NUMBER 400570 SHEET 2 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	000471	470R 5% 1/4W CARBON	MULLARD	CR25	—
R25	000331	330R 5% 1/4W CARBON	MULLARD	CR25	1
R26	000471	470R 5% 1/4W CARBON	MULLARD	CR25	—
R27	000102	1k 5% 1/4W CARBON	MULLARD	CR25	2
R28	000102	1k 5% 1/4W CARBON	MULLARD	CR25	—
R29	000561	560R 5% 1/4W CARBON	MULLARD	CR25	4
R30	000561	560R 5% 1/4W CARBON	MULLARD	CR25	—
R31	000561	560R 5% 1/4W CARBON	MULLARD	CR25	—
R32	000561	560R 5% 1/4W CARBON	MULLARD	CR25	—
R33		NOT FITTED			—
R34		NOT FITTED			—
R35	000472	4K7 5% 1/4W CARBON	MULLARD	CR25	—
AN1	090079	5k6 x 8 2% NETWORK	AB	850-91-5k6	2
AN2	090079	5k6 x 8 2% NETWORK	AB	850-91-5k6	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.													
ECO													
DATE													
CHKD													

DATE 23 5 84 | DRAWN JR | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 ANALOG INTERFACE PCB. ASSY.

DRAWING NUMBER 400570 | SHEET 3 of 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C1	104026	47nF +50 -20 % 50V CER DISC	SIEMENS	B37449	41
C2	104026	47nF " " " "	"	"	—
C3	104026	47nF " " " "	"	"	—
C4	104026	47nF " " " "	"	"	—
C5	104026	47nF " " " "	"	"	—
C6	104026	47nF " " " "	"	"	—
C7	104026	47nF " " " "	"	"	—
C8	104026	47nF " " " "	"	"	—
C9		NOT USED			—
C10		NOT USED			
C11	104026	47nF +50 -20 % 50V CER DISC	SIEMENS	B37449	—
C12	104026	47nF " " " "	"	"	—
C13	104026	47nF " " " "	"	"	—
C14	104026	47nF " " " "	"	"	—
C15	104026	47nF " " " "	"	"	—
C16	104026	47nF " " " "	"	"	—
C17	104026	47nF " " " "	"	"	—
C18	104026	47nF " " " "	"	"	—
C19	104026	47nF " " " "	"	"	—
C20	104026	47nF " " " "	"	"	—
C21	104026	47nF " " " "	"	"	—
C22	104026	47nF " " " "	"	"	—
C23	104026	47nF " " " "	"	"	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.													
ECO													
DATE													
CHKD													

DATE 23 5 84 | DRAWN JR | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200. ANALOG INTERFACE PCB. ASSY.

DRAWING NUMBER 400570 | SHEET 4 of 9

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
C24	104026	47nF +50% -20% 50V CER. DISC	SIEMENS	B37449	–
C25	104026	" " " " "	"	"	–
C26	104026	" " " " "	"	"	–
C27	104026	" " " " "	"	"	–
C28	104026	" " " " "	"	"	–
C29	150016	1µF 20% 35V DIP. TANT	UNION CARBIDE	KIROE35	1
C30		NOT FITTED			–
C31		NOT FITTED			–
C32	150012	100nF 20% 35V DIP. TANT	UNION CARBIDE	KR10E35	1
C33	104026	47nF +50% -20% 50V CER. DISC	SIEMENS	B37449	–
C34	104026	" " " " "	"	"	–
C35	104026	" " " " "	"	"	–
C36	104026	" " " " "	"	"	–
C37	104026	" " " " "	"	"	–
C38	104026	" " " " "	"	"	–
C39	102220	22pF 5% 500V CER. DISC	ITT	CD10	1
C40	102330	33pF 5% 500V CER DISC	ITT	CD10	1
C41	104026	47nF +50% -20% 50V CER. DISC	SIEMENS	B37449	–
C42	104026	" " " " "	"	"	–
C43	104026	" " " " "	"	"	–
C44	104026	" " " " "	"	"	–
C45	104026	" " " " "	"	"	–
C46	104026	" " " " "	"	"	–

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

23 · 5 · 84 JR

datron ELECTRONICS LTD

4200. ANALOG INTERFACE PCB. ASSY.

400570 5 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
C47	150024	47µF 20% 16V DIP. TANT	UNION CARBIDE	K47E16	1
C48	104026	47nF +50% -20% 50V CER. DISC	SIEMENS	B37449	–
C49	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	–
C50		NOT FITTED			–
C51	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	–
D1		NOT FITTED			–
D2		NOT FITTED			–
Q1		NOT FITTED			
M1	270050	HEX INVERTER LS	NATIONAL	DM74LS04N	1
M2	280008	QUAD 2 I/P 'NAND' GATE	MOTOROLA	MC14011BCP	1
M3	280011	DUAL D FLIP-FLOP	MOTOROLA	MC14013BCP	2
M4	280059	DUAL BINARY UP COUNTER	MOTOROLA	MC14520BCP	1
M5	280037	HEX BUFFER	MOTOROLA	MC14050BCP	1
M6	270048	QUAD 2 I/P 'NAND' LS	NATIONAL	DM74LS00N	2
M7	270072	QUAD 2 I/P 'NOR' LS	NATIONAL	DM74LS02N	2
M8	270002	QUAD 2 I/P O/C NAND	NATIONAL	DM7401N	2
M9		NOT USED			–
M10		NOT USED			–
M11		NOT USED			–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 23 5 84

DR'N JR

CHKD

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200. ANALOG INTERFACE PCB. ASSY.

DRAWING NUMBER 400570 SHEET 6 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
M12	270072	QUAD 2 I/P 'NOR' LS	NATIONAL	DM74LS02N	–
M13	270055	DUAL 4 I/P 'NAND' LS	NATIONAL	DM74LS20N	1
M14	270075	DUAL D FLIP-FLOP LS	NATIONAL	DM74LS74N	1
M15	280095	4BIT SYNC. BINARY COUNTER	MULLARD	HEF40163BP	3
M16	280095	4BIT SYNC. BINARY COUNTER	MULLARD	HEF40163BP	–
M17	280095	4BIT SYNC. BINARY COUNTER	MULLARD	HEF40163BP	–
M18		NOT FITTED			–
M19	280093	QUAD EXCLUSIVE-OR GATE	MOTOROLA	MC14070BCP	6
M20	280093	QUAD EXCLUSIVE-OR GATE	MOTOROLA	MC14070BCP	–
M21	280093	QUAD EXCLUSIVE-OR GATE	MOTOROLA	MC14070BCP	–
M22	270074	TRIPLE 3 I/P 'NOR' LS	NATIONAL	DM74LS27N	3
M23	270074	TRIPLE 3 I/P 'NOR' LS	NATIONAL	DM74LS27N	–
M24	270074	TRIPLE 3 I/P 'NOR' LS	NATIONAL	DM74LS27N	–
M25	280093	QUAD EXCLUSIVE-OR GATE	MOTOROLA	MC14070BCP	–
M26	280093	QUAD EXCLUSIVE-OR GATE	MOTOROLA	MC14070BCP	–
M27	280093	QUAD EXCLUSIVE-OR GATE	MOTOROLA	MC14070BCP	–,
M28		NOT FITTED			–
M29	280068	DUAL PRECISION MONOSTABLE	MOTOROLA	MC14538BCP	1
M30		NOT FITTED			–
M31	280015	QUAD LATCH	MOTOROLA	MC14076BCP	7
M32	280015	QUAD LATCH	MOTOROLA	MC14076BCP	–
M33	280015	QUAD LATCH	MOTOROLA	MC14076BCP	–
M34	280015	QUAD LATCH	MOTOROLA	MC14076BCP	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 23 5 84 | datron ELECTRONICS LTD

DRAWN | CHECKED | APPROVED | DATE

TITLE 4200. ANALOG INTERFACE PCB. ASSY.

DRAWING NUMBER 400570 | SHEET 7 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
M35	270073	QUAD 2 I/P O/C 'AND' LS	NATIONAL	DM74LS09N	2
M36	270073	QUAD 2 I/P O/C 'AND' LS	NATIONAL	DM74LS09N	–
M37	280015	QUAD LATCH	MOTOROLA	MC14076BCP	–
M38	280015	QUAD LATCH	MOTOROLA	MC14076BCP	–
M39	280015	QUAD LATCH	MOTOROLA	MC14076BCP	–
M40	270036	MONOSTABLE	NATIONAL	DM74121N	1
M41	270057	DUAL JK FLIP-FLOP LS	NATIONAL	DM74LS76N	2
M42	270057	DUAL JK FLIP-FLOP LS	NATIONAL	DM74LS76N	–
M43	270048	QUAD 2 I/P NAND LS	NATIONAL	DM74LS00N	–
M44	280094	SYNC! SERIAL DATA ADAPTOR	MOTOROLA	MC6852P	1
M45	280024	TRI-STATE HEX.NON-INV. BUFFER	MOTOROLA	MC14503BCP	1
M46	270002	QUAD 2 I/P O/C NAND	NATIONAL	DM7401N	–
M47	280038	HEX D FLIP-FLOP	MOTOROLA	MC14174BCP	4
M48	280038	HEX D FLIP-FLOP	MOTOROLA	MC14174BCP	–
M49	280011	DUAL D FLIP-FLOP	MOTOROLA	MC14013BCP	–
M50	280105	8 I/P NAND	MOTOROLA	MC14068BCP	1
M51	280038	HEX D FLIP-FLOP	MOTOROLA	MC14174BCP	–
M52	280038	HEX D FLIP-FLOP	MOTOROLA	MC14174BCP	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 23 5 84 | datron ELECTRONICS LTD

DRAWN | CHECKED | APPROVED | DATE

TITLE 4200. ANALOG INTERFACE PCB. ASSY.

DRAWING NUMBER 400570 | SHEET 8 OF 9

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER		MANUFACTURER'S PART No	No USED Per Assy
	410155-5	PCB				1
	605060/A	14 WAY DIL SOCKET				25
	605061/A	16 WAY DIL SOCKET				20
	605064/A	24 WAY DIL SOCKET				1
	630117	CIRCUIT BOARD EJECTOR	RICHCO		CBE BROWN	2
X1	800029	CRYSTAL OSCILLATOR	4·096 MHz	IQD	IQXO-100	1
	620007	TEST POINT TERMINAL	MICROVAR		C.30	23
	540002	22 SWG TINNED COPPER WIRE	R.S.			A/R

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS		DATE	23 5 84
DATE		DRAWN	
CHKD		CHECKED	
		APPROVED	
		DATE	

datron ELECTRONICS LTD

TITLE: 4200. ANALOG INTERFACE PCB. ASSY.

DRAWING NUMBER: 400570 SHEET 9 OF 9

DRAWING No. 400535

	CHK'D	DATE	ECO	REVISION	ISSUE
		5-7-85	1958	5.0	
		10.10.85	1980	6.0	
		2.12.85	2075	7.0	
		2.12.85	2074	7.1	

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION
COMP. LAYOUT.	480535	1	5.0 6.0 7.0
SCHEMATIC	430535	1	5.0 6.0 7.0
SCHEMATIC	430535	2	5.0 6.0 7.0
SCHEMATIC	430535	3	5.0 6.0 7.0
SCHEMATIC	430535	4	5.0 6.0 7.0
SCHEMATIC	430535	5	5.0 6.0 7.0
SCHEMATIC	430535	6	5.0 6.0 7.0
FUNCTIONAL TEST. PROC.	460535/FT	1-14	5.0 6.0 7.0 7.1
FUNCT- TEST TICK LIST	470535/FT	1-2	5.0 6.0 7.0

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHKD	APPD	TITLE	DRAWING No.
B. JACKSON	MJO		4200 REF. DIVIDER PCB ASSY	400535
DATE 5-7-85	DATE 10.7.85	DATE 23.7.85		SHEET 1 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000472	4k7 5% 1/4W CARBON	MULLARD	CR25	6
R2	000561	560R 5% 1/4W CARBON	MULLARD	CR25	8
R3	000622	6k2 5% 1/4W CARBON	MULLARD	CR25	4
R4	000561	560R 5% 1/4W CARBON	MULLARD	CR25	—
R5	000472	4k7 5% 1/4W CARBON	MULLARD	CR25	—
R6	000472	4k7 5% 1/4W CARBON	MULLARD	CR25	—
R7	000561	560R 5% 1/4W CARBON	MULLARD	CR25	—
R8	000272	2k7 5% 1/4W CARBON	MULLARD	CR25	2
R9	000561	560R 5% 1/4W CARBON	MULLARD	CR25	—
R10	000472	4k7 5% 1/4W CARBON	MULLARD	CR25	—
R11	000103	10k 5% 1/4W CARBON	MULLARD	CR25	9
R12	000102	1k 5% 1/4W CARBON	MULLARD	CR25	5
R13	000622	6k2 5% 1/4W CARBON	MULLARD	CR25	—
R14	000102	1k 5% 1/4W CARBON	MULLARD	CR25	—
R15	000103	10k 5% 1/4W CARBON	MULLARD	CR25	—
R16	013161	3k16 1% 1/8W 50ppm MF	HOLCO	H8C	4
R17	000101	100R 5% 1/4W CARBON	MULLARD	CR25	12
R18 (FSV)	014750	475R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R19	013161	3k16 1% 1/8W 50ppm MF	HOLCO	H8C	—
R20	000101	100R 5% 1/4W CARBON	MULLARD	CR25	—
R21	013161	3k16 1% 1/8W 50ppm MF	HOLCO	H8C	—
R22	000101	100R 5% 1/4W CARBON	MULLARD	CR25	—
R23 (FSV)	012261	2k26 1% 1/8W 50ppm MF	HOLCO	H8C	1

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	2	3	4	5
ECO	1577	1603	1685	1707
DATE	7.2.84	5.4.84	1.8.84	21.9.84
CHKD	RD	RD	MD	MD

DATE 2.3.84
DRAWN IL
CHECKED RD
APPROVED J Hume
DATE 8.3.84

datron ELECTRONICS LTD

TITLE 4200 REF DIVIDER PCB. ASSY.

DRAWING NUMBER 400535 SHEET 2 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
R24	013161	3k16 1% 1/8W 50ppm MF	HOLCO	H8C	—
R25	000101	100R 5% 1/4W CARBON	MULLARD	CR25	—
R26	000102	1k 5% 1/4W CARBON	MULLARD	CR25	—
R27	000431	430R 5% 1/4W CARBON	MULLARD	CR25	—
R28	000101	100R 5% 1/4W CARBON	MULLARD	CR25	2
R29 (FSV)	019538	95R3 1% 1/8W 50ppm MF	HOLCO	H8C	—
R30	000431	430R 5% 1/4W CARBON	MULLARD	CR25	4
R31	000101	100R 5% 1/4W CARBON	MULLARD	CR25	—
R32	000102	1k 5% 1/4W CARBON	MULLARD	CR25	—
R33 (FSV)	019538	95R3 1% 1/8W 50ppm MF	HOLCO	H8C	—
R34	000562	5k6 5% 1/4W CARBON	MULLARD	CR25	—
R35	000561	560R 5% 1/4W CARBON	MULLARD	CR25	4
R36	000622	6k2 5% 1/4W CARBON	MULLARD	CR25	—
R37	000561	560R 5% 1/4W CARBON	MULLARD	CR25	—
R38	000562	5k6 5% 1/4W CARBON	MULLARD	CR25	—
R39	000562	5k6 5% 1/4W CARBON	MULLARD	CR25	—
R40	000561	560R 5% 1/4W CARBON	MULLARD	CR25	—
R41	000622	6k2 5% 1/4W CARBON	MULLARD	CR25	—
R42	000561	560R 5% 1/4W CARBON	MULLARD	CR25	—
R43	000562	5k6 5% 1/4W CARBON	MULLARD	CR25	—
R44	000202	2k0 5% 1/4W CARBON	MULLARD	CR25	—
R45	000222	2k2 5% 1/4W CARBON	MULLARD	CR25	2
R46	014320	432R 1% 1/8W 50ppm MF	HOLCO	H8C	3
					4

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REF. DIVIDER PCB. ASSY.

DRAWING NUMBER 400535 SHEET 3 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No USED Per Assy
R47	000101	100R 5% 1/4W CARBON	MULLARD	CR25	—
R48 (FSV)	019538	95R3 1% 1/8W 50ppm MF	HOLCO	H8C	—
R49	014320	432R 1% 1/8W 50ppm MF	HOLCO	H8C	—
R50	000101	100R 5% 1/4W CARBON	MULLARD	CR25	—
R51	014320	432R 1% 1/8W 50ppm MF	HOLCO	H8C	—
R52	000101	100R 5% 1/4W CARBON	MULLARD	CR25	—
R53 (FSV)	019538	95R3 1% 1/8W 50ppm MF	HOLCO	H8C	—
R54	014320	432R 1% 1/8W 50ppm MF	HOLCO	H8C	—
R55	000101	100R 5% 1/4W CARBON	MULLARD	CR25	—
R56	000474	470k 5% 1/4W CARBON	MULLARD	CR25	1
R57	000184	180k 5% 1/4W CARBON	MULLARD	CR25	1
R58	013742	37k4 1% 1/8W 50ppm MF	HOLCO	H8C	1
R59	000103	10k 5% 1/4W CARBON	MULLARD	CR25	—
R60	000338	3R3 5% 1/4W CARBON	MULLARD	CR25	1
R61	000104	100k 5% 1/4W CARBON	MULLARD	CR25	2
R62	018872	88k7 1% 1/8W 50ppm MF	HOLCO	H8C	1
R63	017872	78k7 1% 1/8W 50ppm MF	HOLCO	H8C	2
R64	070144	36k0 .01% 5ppm WW	MANN	MX125B	1
R65	070142	12k0 .01% 5ppm WW	MANN	MX125B	2
R66	017872	78k7 1% 1/8W 50ppm MF	HOLCO	H8C	—
R67	000912	9k1 5% 1/4W CARBON	MULLARD	CR25	1
R68		NOT USED			—
R69		NOT USED			—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REF. DIVIDER PCB. ASSY.

DRAWING NUMBER 400535 SHEET 4 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R70		NOT USED			—
R71		NOT USED			—
R72	000682	6k8 5% ¼W CARBON	MULLARD	CR25	1
R73	000272	2k7 5% ¼W CARBON	MULLARD	CR25	—
R74	000470	47R 5% ¼W CARBON	MULLARD	CR25	3
R75	011183	118k 1% ⅛W 50ppm MF	HOLCO	H8C	1
R76	011001	1k00 1% ⅛W 50ppm MF	HOLCO	H8C	4
R77	011001	1k00 1% ⅛W 50ppm MF	HOLCO	H8C	—
R78	012672	26k7 1% ⅛W 50ppm MF	HOLCO	H8C	1
R79	080032	78k7 ·1% 1W 10ppm MF	VISHAY	VS3C5	1
R80	070143	16k0 ·01% 5ppm WW	MANN	MX125B	1
R81	070142	12k0 ·01% 5ppm WW	MANN	MX125B	—
R82		NOT USED			
R83		NOT USED			
R84	012212	22k1 1% ⅛W 50ppm MF	HOLCO	H8C	2
R85 (FSV)	013162	31k6 1% ⅛W 50ppm MF	HOLCO	H8C	1
R86	000102	1k 5% ¼W CARBON	MULLARD	CR25	—
R87		NOT USED		CR25	—
R88		NOT USED			—
R89		NOT USED			—
R90	000104	100k 5% ¼W CARBON	MULLARD	CR25	—
R91	011182	11k8 1% ⅛W 50ppm MF	HOLCO	H8C	1
R92	011001	1k00 1% ⅛W 50ppm MF	HOLCO	H8C	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS	1													
ECO														
DATE														
CHKD														

DATE 2.3.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REF. DIVIDER PCB. ASSY.

DRAWING NUMBER 400535 SHEET 5 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R93	011001	1k00 1% ⅛W 50ppm MF	HOLCO	H8C	—
R94	014532	45k3 1% ⅛W 50ppm MF	HOLCO	H8C	1
R95	011402	14k0 1% ⅛W 50ppm MF	HOLCO	H8C	1
R96	019531	9k53 1% ⅛W 50ppm MF	HOLCO	H8C	1
R97		NOT USED			—
R98	011002	10k 1% ⅛W 50ppm MF	HOLCO	H8C	4
R99	070156	555k41 ·01% 5ppm WW	MANN	AX175B	1
R100	070145	475R ·01% 5ppm WW	MANN	AX175B	1
R101	012212	22k1 1% ⅛W 50ppm MF	HOLCO	H8C	—
R102	000473	47k 5% ¼W CARBON	MULLARD	CR25	4
R103	000103	10k 5% ¼W CARBON	MULLARD	CR25	—
R104	000103	10k 5% ¼W CARBON	MULLARD	CR25	—
R105	000472	4k7 5% ¼W CARBON	MULLARD	CR25	—
R106	000103	10k 5% ¼W CARBON	MULLARD	CR25	—
R107	000393	39k 5% ¼W CARBON	MULLARD	CR25	4
R108	012001	2k00 1% ⅛W 50ppm MF	HOLCO	H8C	4
R109	011302	13k0 1% ⅛W 50ppm MF	HOLCO	H8C	4
R110	012001	2k00 1% ⅛W 50ppm MF	HOLCO	H8C	—
R111	000393	39k 5% ¼W CARBON	MULLARD	CR25	—
R112	011302	13k0 1% ⅛W 50ppm MF	HOLCO	H8C	—
R113	000101	100R 5% ¼W CARBON	MULLARD	CR25	—
R114	000101	100R 5% ¼W CARBON	MULLARD	CR25	—
R115	000470	47R 5% ¼W CARBON	MULLARD	CR25	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 2.3.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REF. DIVIDER PCB. ASSY.

DRAWING NUMBER 400535 SHEET 6 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R116	000222	2k2 5% 1/3W CARBON	MULLARD	CR25	—
R117		NOT USED			—
R118	006132	1k30 2% 1W MET-OX	ELECTROSIL	FP1	2
R119	006132	1k30 2% 1W MET-OX	ELECTROSIL	FP1	—
R120	000103	10k 5% 1/4W CARBON	MULLARD	CR25	—
R121	000473	47k 5% 1/4W CARBON	MULLARD	CR25	—
R122	000823	82k 5% 1/4W CARBON	MULLARD	CR25	1
R123	000473	47k 5% 1/4W CARBON	MULLARD	CR25	—
R124	000152	1K5 5% 1/4W CARBON	MULLARD	CR25	2
R125	011002	10KO 1% 1/8W 50ppm MF	HOLCO	H8C	-
R126	011002	10KO 1% 1/8W 50ppm MF	HOLCO	H8C	—
R127	011002	10kO 1% 1/8W 50ppm MF	HOLCO	H8C	—
R128	012001	2k 1% 1/8W 50ppm MF	HOLCO	H8C	—
R129	011302	13k 1% 1/8W 50ppm MF	HOLCO	H8C	—
R130	012001	2k 1% 1/8W 50ppm. MF	HOLCO	H8C	—
R131	011302	13k 1% 1/8W 50ppm MF	HOLCO	H8C	—
R132	000470	47R 5% 1/3W CARBON	MULLARD	CR25	—
R133	000222	2k2 5% 1/3W CARBON	MULLARD	CR25	—
R134	000821	820R 5% 1/3W CARBON	MULLARD	CR25	2
R135	000821	820R 5% 1/3W CARBON	MULLARD	CR25	—
R136	000393	39k 5% 1/3W CARBON	MULLARD	CR25	—
R137	000393	39k 5% 1/3W CARBON	MULLARD	CR25	—
R138	000220	22R 5% 1/3W CARBON	MULLARD	CR25	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
E.C.O														
DATE														
CHKD														

DATE 2.3.84

DRAWN IL.

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 REF DIVIDER PCB ASSY

DRAWING NUMBER 400535

SHEET 7 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R139	000220	22R 5% 1/3W CARBON	MULLARD	CR25	—
R140	000152	1k5 5% 1/3W CARBON	MULLARD	CR25	—
R141	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R142	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	—
R143	000473	47k 5% 1/3W CARBON	MULLARD	CR25	—
R144	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R145	000202	2k 5% 1/3W CARBON	MULLARD	CR25	—
AN1	090031	1k x7 2% NETWORK	BECKMAN	L08-1-R1k	1
AN2	090096	1M x8 2% NETWORK	BECKMAN	L09-1-R1M	2
AN3	090096	1M x8 2% NETWORK	BECKMAN	L09-1-R1M	—

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS														
E.C.O														
DATE														
CHKD														

DATE 2.3.84

DRAWN IL.

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 REF. DIVIDER PCB. ASSY.

DRAWING NUMBER 400535

SHEET 8 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
C1	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	23
C2	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C3	150003	47µF 20% 6V3 DIP TANT	UNION CARBIDE	K47E6V3	1
C4	150021	22µF 20% 25V DIP TANT	UNION CARBIDE	K22E25	1
C5		NOT USED			—
C6	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C7	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	K1R0E35	3
C8	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C9	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C10	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C11	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C12	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C13	102101	100pF 10% 500V CER DISC	ITT	CD10	1
C14	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C15	110013	100nF 20% 250V POLYESTER	MULLARD	C280AE P100k	2
C16	110013	100nF 20% 250V POLYESTER	MULLARD	C280AE P100k	—
C17	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C18	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C19	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C20	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C21	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C22	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C23	140016	470nF 10% 250V POLYPROP	RIFA	PHE402 HFK	10

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84 | datron ELECTRONICS LTD

DRAWN IL | TITLE 4200 REF. DIVIDER PCB. ASSY.

CHECKED | APPROVED | DATE

DRAWING NUMBER 400535 | SHEET 9 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C24	102470	47pF 5% 500V CER DISC	ITT	CD10	3
C25	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C26	102470	47pF 5% 500V CER DISC	ITT	CD10	—
C27	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C28		NOT USED			—
C29	140016	470nF 10% 250V POLYPROP	RIFA	PHE402HFK	—
C30	102470	47pF 5% 500V CER DISC	ITT	CD10	—
C31	140016	470nF 10% 250V POLYPROP	RIFA	PHE402HFK	—
C32	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C33	150020	10µF 20% 25V DIP TANT.	UNION CARBIDE	K10E25	7
C34	180015	470µF 25V AL. ELECT.	MULLARD	017-16471	1
C35	150020	10µF 20% 25V DIP. TANT.	UNION CARBIDE	K10E25	—
C36		NOT USED			—
C37		NOT USED			—
C38	110030	1nF 20% 100V POLYESTER	WIMA	FKS2	3
C39	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C40	102270	27pF 5% 500V CER DISC	ITT	CD10	2
C41	140016	470nF 10% 250V POLYPROP	RIFA	PHE 402 HFK	—
C42	140016	470nF 10% 250V POLYPROP	RIFA	PHE 402 HFK	—
C43	140016	470nF 10% 250V POLYPROP	RIFA	PHE 402 HFK	—
C44	140016	470nF 10% 250V POLYPROP	RIFA	PHE 402 HFK	—
C45	102270	27pF 5% 500V CER DISC	ITT	CD10	—
C46	140016	470nF 10% 250V POLYPROP	RIFA	PHE 402 HFK	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84 | datron ELECTRONICS LTD

DRAWN IL | TITLE 4200 REF. DIVIDER PCB. ASSY.

CHECKED | APPROVED | DATE

DRAWING NUMBER 400535 | SHEET 10 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
C47	140016	470nF 10% 250V POLYPROP	RIFA	PHE 402 HFK	—
C48	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	—
C49	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C50	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C51	140051 *	10nF 20% 400V POLYPROP	WIMA	MKP10	1
C52	110035	220nF 20% 63V POLYESTER	WIMA	MKS2	2
C53	140016	470nF 10% 250V POLYPROP	RIFA	PHE 402 HFK	—
C54	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	4
C55	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	—
C56	110039	470nF 20% 63V POLYESTER	WIMA	MKS2	3
C57	110039	470nF 20% 63V POLYESTER	WIMA	MKS2	—
C58	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	K1R0E35	—
C59	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	—
C60		NOT USED			—
C61	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	—
C62	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	—
C63	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E35	—
C64	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E35	—
C65	102221	220pF 10% 500V CER DISC	ITT	CD10	2
C66	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	—
C67	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	—
C68	110035	220nF 20% 63V POLYESTER	WIMA	MKS2	—
C69	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	K1R0E35	—

NOTES. * ALTERNATIVE 140044 STEATITE MKP1841.

SEE SHEET 2 FOR LATEST ISSUE

RQS													
E.C.O.													
DATE													
CHKD													

DATE 2.3.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REF. DIVIDER PCB. ASSY

DRAWING NUMBER 400535

SHEET 11 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C70	110039	470nF 20% 63V POLYESTER	WIMA	MKS2	—
C71	110030	1nF 20% 100V POLYESTER	WIMA	FKS2	—
C72	110030	1nF 20% 100V POLYESTER	WIMA	FKS2	—
C73	102221	220pF 10% 500V CER DISC	ITT	CD10	—
C74	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

RQS													
E.C.O.													
DATE													
CHKD													

DATE 2.3.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REF. DIVIDER PCB. ASSY.

DRAWING NUMBER 400535

SHEET 12 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D1	210027	2V7 400mW ZENER	MULLARD	BZY88C2V7	4
D2	210120	12V 400mW ZENER	MULLARD	BZY88C12	1
D3	210027	2V7 400mW ZENER	MULLARD	BZY88C2V7	–
D4	210043	4V3 400mW ZENER	MULLARD	BZY88C4V3	1
D5	210027	2V7 400mW ZENER	MULLARD	BZY88C2V7	–
D6	210027	2V7 400mW ZENER	MULLARD	BZY88C2V7	–
D7	213009	15V 5W ZENER	UNITRODE	TVS515	5
D8	213009	15V 5W ZENER	UNITRODE	TVS515	–
D9	213009	15V 5W ZENER	UNITRODE	TVS515	–
D10	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	1
D11	213009	15V 5W ZENER	UNITRODE	TVS515	–
D12		NOT USED			–
D13		NOT USED			–
D14	210062	6V2 400mW ZENER	MULLARD	BZY88C6V2	2
D15	210062	6V2 400mW ZENER	MULLARD	BZY88C6V2	–
D16		NOT USED			–
D17		NOT USED			–
D18	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	8
D19	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D20	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D21	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D22	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D23	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84
DRAWN IL.
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REF DIVIDER PCB ASSY

DRAWING NUMBER 400535

SHEET 13 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D24	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	–
D25	213006	5V 5W ZENER	UNITRODE	TVS505	1
D26	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D27	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D28	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D29	213009	15V 5W ZENER	UNITRODE	TVS515	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84
DRAWN IL.
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REF DIVIDER PCB. ASSY

DRAWING NUMBER 400535

SHEET 14 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy.
Q1	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	13
Q2	240006	Si NPN "	NATIONAL	2N3904/TO18	14
Q3	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q4	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q5	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q6	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q7	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q8	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q9	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q10	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q11	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q12	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q13		NOT USED			—
Q14		NOT USED			—
Q15		NOT USED			—
Q16		NOT USED			—
Q17		NOT USED			—
Q18		NOT USED			—
Q19	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q20	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q21	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q22	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q23	250004	Si PNP "	NATIONAL	2N3906/TO18	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REF. DIVIDER PCB. ASSY.

DRAWING NUMBER 400535

SHEET 15 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q24	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q25	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q26	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q27	240006	Si NPN "	NATIONAL	2N3904/TO18	—
Q28	250004	Si PNP "	NATIONAL	2N3906/TO18	—
Q29	230039	P-CHAN JFET	SILICONIX	J175	2
Q30	230039	P-CHAN JFET	SILICONIX	J175	—
Q31	230038	N-CHAN JFET	SILICONIX	J112	1
Q32 *	239037-1	N-CHAN JFET SEL SET	DATRON (SEE DRG)	J108 (COLOUR)	1 SET OF 4
Q33	230048	P-CHAN JFET	TELEDYNE	J174	2
Q34 *	239037-1	N-CHAN JFET SEL SET	DATRON (SEE DRG)	J108 (COLOUR)	—
Q35 *	239037-1	N-CHAN JFET SEL SET	DATRON (SEE DRG)	J108 (COLOUR)	—
Q36	230048	P-CHAN JFET	TELEDYNE	J174	—
Q37 *	239037-1	N-CHAN JFET SEL SET	DATRON (SEE DRG)	J108 (COLOUR)	—
Q38		NOT USED			—
Q39		NOT USED.			—
Q40	250004	Si PNP	NATIONAL	2N3906/TO18	—
Q41	230031	N-CHAN DUAL JFET	TELEDYNE	SU2656M	4
Q42	230031	N-CHAN DUAL JFET	TELEDYNE	SU2656M	—
Q43	250004	Si PNP	NATIONAL	2N3906/TO18	—
Q44	230031	N-CHAN DUAL JFET	TELEDYNE	SU2656M.	—
Q45	240006	Si NPN	NATIONAL	2N3904/TO18	—
Q46	230042	N-CHAN CURRENT LIM. 3mA	TELEDYNE	TCR 510	2

NOTES. * THESE 4 FETS MUST HAVE THE SAME COLOUR CODING

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REF. DIVIDER PCB. ASSY.

DRAWING NUMBER 400535

SHEET 16 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q47	230042	N-CHAN CURRENT LIM 3mA	TELEDYNE	TCR510	—
Q48	250021	Si PNP TRANSISTOR	MOTOROLA	BD140	1
Q49	240031	Si NPN TRANSISTOR	MOTOROLA	BD139	1
Q50		NOT USED			—
Q51	230031	N-CHAN DUAL JFET	TELEDYNE	SU2656M	—
Q52	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q53	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REF. DIVIDER PCB. ASSY.

DRAWING NUMBER 400535 SHEET 17 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
M1	220027	HIGH CMR OPTO ISOL.	HP	HCPL-2601(5082-4361)	7
M2		NOT USED			—
M3	220027	HIGH CMR OPTO ISOL	HP	HCPL-2601(5082-4361)	—
M4	220017	2k5V DUAL OPTO ISOLATOR	FAIRCHILD	FCD880	1
M5		NOT USED			—
M6	220027	HIGH CMR OPTO ISOL.	HP	HCPL-2601(5082-4361)	—
M7	220027	HIGH CMR OPTO ISOL.	HP	HCPL-2601(5082-4361)	—
M8	220027	HIGH CMR OPTO ISOL.	HP	HCPL-2601(5082-4361)	—
M9	220027	HIGH CMR OPTO ISOL	HP	HCPL-2601(5082-4361)	—
M10	280068	DUAL PRECISION MONOSTABLE	MOTOROLA	MC14538BCP	1
M11	280037	HEX BUFFER	MOTOROLA	MC14050BCP	1
M12	260025	101 OP AMP	NATIONAL	LM101AH	3
M13	280011	DUAL-D FLIP-FLOP	MOTOROLA	MC14013BCP	2
M14	280009	HEX INVERTER/BUFFER	MOTOROLA	MC14049BCP	1
M15	280089	8 BIT SHIFT REGISTER	MOTOROLA	MC14094BCP	6
M16	260025	101 OP AMP	NATIONAL	LM101AH	—
M17		NOT USED			—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REF. DIVIDER PCB. ASSY.

DRAWING NUMBER 400535 SHEET 18 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
M18	280088	8BIT STATIC SHIFT REGISTER	MOTOROLA	MC14021BCP	2
M19	280089	8 BIT STATIC SHIFT REGISTER	MOTOROLA	MC14094BCP	—
M20	260025	101 OP AMP	NATIONAL	LM101	—
M21		NOT USED			—
M22	280088	8BIT STATIC SHIFT REGISTER	MOTOROLA	MC14021BCP	—
M23	260027	714 OP AMP	FAIRCHILD	μA714HC	5
M24	280023	QUAD 2I/P NOR GATE	MOTOROLA	MC14001BCP	1
M25	280089	8BIT STATIC SHIFT REGISTER	MOTOROLA	MC14094BCP	—
M26	260057	5534 OP AMP	SIGNETICS	NE5534N	2
M27	280089	8BIT STATIC SHIFT REGISTER	MOTOROLA	MC14094BCP	—
M28	260057	5534 OP AMP	SIGNETICS	NE5534N	—
M29	290090	7X DARLINGTON DRIVER	SPRAGUE/EXAR	ULN2002A/XR2202CP	1
M30	280089	8 BIT STATIC SHIFT REGISTER	MOTOROLA	MC14094BCP	—
M31	280089	8BIT STATIC SHIFT REGISTER	MOTOROLA	MC14094BCP	—
M32	260027	714 OP AMP	FAIRCHILD	μA714HC	—
M33	260053	7650 OP AMP	INTERSIL	ICL7650CPD	2
M34	260027	714 OP AMP	FAIRCHILD	μA714HC	—
M35	260027	714 OP AMP	FAIRCHILD	μA714HC	—
M36	280106	HEX LEVEL SHIFTER	MOTOROLA	MC14504BCP	1
M37	280011	DUAL D FLIP FLOP	MOTOROLA	MC14013BCP	—
M38	260053	7650 OP AMP	INTERSIL	ICL7650CPD	—
M39	260027	714 OP AMP	FAIRCHILD	μA714HC	—
M40	220027	HIGH CMR OPTO ISOL.	HP	HCPL-2601(5082-4361)	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84 | datron ELECTRONICS LTD

DRAWN | TITLE 4200 REF DIVIDER PCB ASSY.

CHECKED

APPROVED

DATE | DRAWING NUMBER 400535 | SHEET 19 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy.
RL1	330030	RELAY 4P N/O	SDS	S4 24V	2
RL2	330030	RELAY 4P N/O	SDS	S4 24V	—
RL3		NOT USED			—
L1-L9	370001	10μH 0·85Ω RF CHOKE	PLESSEY	SB/10/0011/10	9
T1-T5	310002-2	PULSE Tx	NEWPORT	76616/4HV	5
S1	700070	SLIDE SWITCH. EXTRA HI. LEVER	APR	25446A H6	1
	400553-2	REF PCB ASSY			1
	410257-3	PCB			1
	512999	7/·2 PTFE INS. WIRE (WHITE)			A/R
	540002	22SWG BTC WIRE			A/R
	590004	SLEEVE. PTFE	HELLERMANN ELECTRIC	FE10	A/R
	602001	FSV TERMINAL	MOLEX	02-04-5114	14
	605059/A	8WAY DIL. SOCKET			10
	605060/A	14 WAY DIL. SOCKET			5
	605061/A	16 WAY DIL. SOCKET			13
	611016	SCREW M3x8mm STEEL POZI-PAN ZINC PLATED GKN			2
	604052	4 WAY ·1" PCB PLUG GD. PL	MOLEX	4030-04AG(·825"DIAS)	2
	612025-1	STANDOFF M3x5mm BRASS	DATRON	SEE DRAWING.	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

INSTRUMENT	REF. DIV. ASSY.	REF. ASSY.
4000	400444	400452
4000A	400444A	400452A

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84 | datron ELECTRONICS LTD

DRAWN | TITLE 4200 REF DIVIDER PCB ASSY

CHECKED

APPROVED

DATE | DRAWING NUMBER 400535 | SHEET 20 OF 21

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	613029	M3 CRINKLE WASHER SS.			2
	630024	STANDARD STEATITE INS. BEAD	PARK ROYAL PORCELAIN CO	TYPE No2 (16SWG)	14
	630118	CIRCUIT BOARD EJECTOR	RICHCO	CBE RED	2
	620007	TEST POINT TERMINAL	MICROVAR	C30	32
	900004	SILICONE RUBBER COMP.	RS	555-588	A/R

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 2.3.84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 REF. DIVIDER PCB. ASSY

DRAWING NUMBER 400535

SHEET 21 OF 21

DRAWING No. 400553

	CHK'D	DATE	ECO	REVISION	ISSUE
	MD	4-7-85	1958	2·0	

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE + REVISION
COMP. LAYOUT.	480553	1	2·0
SCHEMATIC	430553	1	2·0
FUNCTIONAL TEST PROC.	460553/FT	1-3	2·0
FUNCI TEST TICK LIST	470553/FT	1	2·0

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APP'D	TITLE	DRAWING No.
B. JACKSON	MJD		4200 REFERENCE PCB ASSY	400553
DATE 4 JULY 85	DATE 10.7.85	DATE 22.7.85		SHEET 1 OF 4

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	090014-2	50k ·02%R 2ppmR WW	MANN	AX175B	} 1 SET
R2	090014-2	9k995 ·02%R 2ppmR WW	MANN	AX175B	
R3		PART OF KIT (WITH D2,D4,D7,D9)		AX175B	—
R4		NOT USED			—
R5	018251	8k25 1% 1/8W 50ppm MF	HOLCO	H8C	1
R6	000470	47R 5% 1/3W CARBON	MULLARD	CR25	2
R7		NOT USED			—
R8	070152	68R ·1% 10ppm WW	MANN	MX125	1
R9	070153	34R ·1% 10ppm WW	MANN	MX125	1
R10		NOT USED			—
R11	011698	16R9 1% 1/8W 50ppm MF	HOLCO	H8C	1
R12		NOT USED			—
R13	050056	10R ·25% 1/8W 50ppm MF	HOLCO	H8	1
R14		NOT USED			—
R15	000438	4R3 5% 1/3W CARBON	MULLARD	CR25	1
R16		NOT USED			—
R17		NOT USED			—
R18	018459	8R45 1% 1/8W 50ppm MF	HOLCO	H8C	1
R19	090081	2k NTC THERMISTOR	RHOPOINT	MSB202k	1
R20	006751	750R 2% 1W MET-OX	ELECTROSIL	FP1	1
R21	000470	47R 5% 1/3W CARBON	MULLARD	CR25	—
R22	000222	2k2 5% 1/3W CARBON	MULLARD	CR25	1
R23	015231	5k23 1% 1/8W 50ppm MF	HOLCO	H8C	2

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	
ECO	X	16135	
DATE	14.12.84	8.84	
CHK'D	MD		

DATE 1.3.84
DRAWN IL
CHECKED MD
APPROVED
DATE 7.3.84

datron ELECTRONICS LTD

TITLE 4200 REF PCB ASSY

DRAWING NUMBER 400553 SHEET 2 OF 4

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	090099-3	25k ATTN. SET	MANN	SEE DRG	1 SET
R25	090099-3	10k ATTN. SET	MANN	SEE DRG	
R26	090099-3	10K ATTN. SET	MANN	SEE DRG	
R27	000125	1M2 5% 1/3W CARBON	MULLARD	CR25	1
R28	012263	226k 1% 1/8W 50ppm MF	HOLCO	H8C	2
R29	063104	100k POT 3/8 SQ CERMET	BECKMAN	72P	1
R30	012003	200k 1% 1/8W 50ppm MF	HOLCO	H8C	1
R31	015231	5k23 1% 1/8W 50ppm MF	HOLCO	H8C	–
R32	012263	226k 1% 1/8W 50ppm MF	HOLCO	H8C	–
C1	102470	47pF 5% 500V CER DISC	ITT	CD10	1
C2	102221	220pF 10% 500V CER DISC	ITT	CD10	1
C3	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	1
D1		NOT USED			–
D2, D4, D7, D9	219021-1	6V2 x 4 ZENER + RESISTOR	DATRON	IN829A x 4 + AX175B	1 KIT
D3		NOT USED			–
D5	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	1
D6		NOT USED			–
D8		NOT USED			–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O.													
DATE													
CHKD.													

DATE 1. 3. 84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 REF PCB ASSY.

DRAWING NUMBER 400553

SHEET 3 OF 4

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q1	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	2
Q2	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	–
M1	260025	101 OP AMP	NATIONAL	LM101AH	1
M2	260027	714 OP AMP	FAIRCHILD	μA714HC	1
	410162-6	PCB			1
	450372-3	HEATSINK BLOCK			1
	450373-3	HEATSINK PLATE			1
	540002	22SWG B.T.C. WIRE			A/R
	590004	SLEEVE PTFE	HELLERMANN ELECTRIC	FE10	A/R
	604056	4WAY .1" PCB PLUG GD. PL.	MOLEX	22-10-2041	1
	611004	M3x6mm POZIPAN STEEL	ZN.PL.		2
	611007	M3x6mm POZI CSK STEEL	ZN. PL.		2
	613029	M3 CRINCKLE WASHER SS			2
	900003	HEATSINK COMPOUND	RS	554-311	A/R
J1, J2	605085	4 WAY PCB SOCKET	MOLEX	22-17-2042	2
	611037	M3x8mm HEX NYLON SCREW			1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.													
E.C.O.													
DATE													
CHKD.													

DATE 1. 3. 84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 REF PCB ASSY

DRAWING NUMBER 400553

SHEET 4 OF 4

DRAWING No. 400550

	CHK'D	DATE	ECO	REVISION	ISSUE
		4.7.85	1958	6.0	
		17.7.85	1948	6.1	
		11.10.85	1980	7.0	
		16.10.85	2031	7.1	
		7.11.85	2052	7.2	

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION
COMP. LAYOUT.	480550	1	6.0 7.0 7.1 7.2
SCHEMATIC	430550	1	6.0 7.0 7.1 7.2
SCHEMATIC	430550	2	6.0 6.1 7.0 7.1
FUNCTIONAL TEST PROC.	460550/FT	1-3	6.0 7.0
FUNCT. TEST TICK LIST	470550/FT	1	6.0 7.0

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD	TITLE
B. JACKSON	MJD		4200 O/P CONTROL PCB ASSY
DATE 4 JULY 85	DATE 10.7.85	DATE	DRAWING No. 400550 SHEET 1 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000105	1M 5% 1/3W CARBON	MULLARD	CR25	8
R2	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R3	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R4	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R5	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R6	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	2
R7	000103	10k 5% 1/3W CARBON	MULLARD	CR25	10
R8	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R9	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R10	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R11	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R12	000244	240k 5% 1/3W CARBON	MULLARD	CR25	-
R13	000104	100k 5% 1/3W CARBON	MULLARD	CR25	1
R14	000473	47k 5% 1/3W CARBON	MULLARD	CR25	2
R15	000105	1M 5% 1/3W CARBON	MULLARD	CR25	1
R16	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R17	000105	1M 5% 1/3W CARBON	MULLARD	CR25	-
R18	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R19	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R20	000471	470R 5% 1/3W CARBON	MULLARD	CR25	-
R21	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	1
R22	000103	10k 5% 1/3W CARBON	MULLARD	CR25	-
R23	000103	10k 5% 1/3W CARBON	MULLARD	CR25	2

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4	5	6
ECO	RELEASE	1783	1806	1826	1851	1867
DATE	18.7.84	5.12.84	9.1.85	22.1.85	26.2.85	15.3.85
CHK'D		MJD	MJD	MJD	MJD	MJD

DATE 21.3.84
DRAWN IL
CHECKED RJC
APPROVED MJL
DATE 18.7.84

datron ELECTRONICS LTD

TITLE 4200 O/P CONT. PCB ASSY.

DRAWING NUMBER 400550 SHEET 2 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	015111	5k11 1% ⅛W 50ppm MF	HOLCO	H8C	2
R25	014750	475R 1% ⅛W 50ppm MF	HOLCO	H8C	1
R26	015111	5k11 1% ⅛W 50ppm MF	HOLCO	H8C	–
R27	011072	10k7 1% ⅛W 50ppm MF	HOLCO	H8C	2
R28	011072	10k7 1% ⅛W 50ppm MF	HOLCO	H8C	–
R29	050059	1M5 1% 2W 100ppm MF	HOLCO	HB03RE	1
R30	000391	390R 5% ⅓W CARBON	MULLARD	CR25	1
R31	007510	51R 2% 2W MET-OX	ELECTROSIL	FP2	1
R32	007151	150R 2% 2W MET-OX	ELECTROSIL	FP2	1
R33	013161	FSV (3k16 1% NOM)			–
R34	016190	619R 1% ⅛W 50ppm MF	HOLCO	H8C	2
R35	011691	1k69 1% ⅛W 50ppm MF	HOLCO	H8C	2
R36	011691	1k69 1% ⅛W 50ppm MF	HOLCO	H8C	–
R37	016190	619R 1% ⅛W 50ppm MF	HOLCO	H8C	–
R38	000103	10k 5% ⅓W CARBON	MULLARD	CR25	–
R39	000103	10k 5% ⅓W CARBON	MULLARD	CR25	–
R40	090001	PTC THERMISTOR	MULLARD	VA8650	1
R41	000221	220R 5% ⅓W CARBON	MULLARD	CR25	1
R42	012008	20R0 1% ⅛W 50ppm MF	HOLCO	H8C	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 21.3.84 | DRAWN IL | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 O/P CONT. PCB ASSY

DRAWING NUMBER 400550 | SHEET 3 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C1	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	7
C2	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	4
C3	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	–
C4	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C5	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	K1R0E35	1
C6	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 21.3.84 | DRAWN IL | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 O/P CONT PCB ASSY

DRAWING NUMBER 400550 | SHEET 4 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C7	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C8	150023	33μF 20% 25V DIP TANT	UNION CARBIDE	K33E25	2
C9	150023	33μF 20% 25V DIP TANT	UNION CARBIDE	K33E25	–
C10	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C11	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C12	150020	10μF 20% 25V DIP TANT	UNION CARBIDE	K10E25	–
C13	150020	10μF 20% 25V DIP TANT	UNION CARBIDE	K10E25	–
C14	102470	47pF 5% 500V CER DISC	ITT	CD10	1
C15	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C16	110040	33nF 20% 63V POLYESTER	WIMA	MKS2	1
C17		NOT USED			–
C18	101103	10nF 25% 250V CER DISC	ITT	CD10	1
C19	104032	220pF 10% 2kV CER DISC	ITT	HD09	1
C20	110041	10nF 20% 100V POLYESTER	WIMA	FKS2	2
C21	110041	10nF 20% 100V POLYESTER	WIMA	FKS2	–
C22	150012	100nF 20% 35V DIP TANT	UNION CARBIDE	KR10E35	1
C23	110013	100nF 20% 250V POLYESTER	MULLARD	C280AEP100K	1
C24		NOT FITTED			–
D1	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	9
D2	213009	15V 5W ZENER	UNITRODE	TVS515	2
D3	213009	15V 5W ZENER	UNITRODE	TVS515	–
D4	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	8

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 21. 3. 84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 O/P CONT. PCB ASSY

DRAWING NUMBER 400550

SHEET 5 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D5	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D6	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D7	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D8	214014	1V22 100ppm ZENER	TELEDYNE	9491BJ	2
D9	214014	1V22 100ppm ZENER	TELEDYNE	9491BJ	–
D10	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D11	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D12	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D13	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D14	213001	10V 5W ZENER	MOTOROLA	IN5347B	1
D15	213011	1V5 250mW ZENER	MULLARD	BZV46-1V5	1
D16	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	–
D17	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	–
D18	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	–
D19	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	–
D20	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	–
D21	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	–
D22	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	–
D23	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	–
D24	210150	15V 400mW ZENER	MULLARD	BZY88C15	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 21. 3. 84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 O/P CONT. PCB ASSY

DRAWING NUMBER 400550

SHEET 6 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q1	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	1
Q2	230048	P-CHAN JFET	TELEDYNE	J174	1
Q3	230042	N-CHAN I LIM 3·0mA	TELEDYNE	TCR510	1
Q4	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	1
Q5	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	1
M1	280037	HEX BUFFER	MOTOROLA	MC14050BCP	1
M2	280034	DUAL MONOSTABLE	MOTOROLA	MC14528BCP	1
M3	290089	7 X DARLINGTON DRIVER	SPRAGUE/EXAR	ULN2003A/XR2203CP	1
M4	280045	TRIPLE 3 I/P NOR	MOTOROLA	MC14025BCP	1
M5	260049	319 DUAL COMPARATOR	NATIONAL	LM319N	2
M6	260049	319 DUAL COMPARATOR	NATIONAL	LM319N	–
M7	260073	411 OP AMP	NATIONAL	LF411CN	1
M8	220027	HIGH CMR OPTO ISOL.	HP	HCPL-2601 (5082-4361)	1
W1	209003	1.5A 100V BRIDGE RECT	MICRO-ELECTRONICS	W001	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE	21.3.84
DRAWN	IL
CHECKED	
APPROVED	
DATE	

datron ELECTRONICS LTD

TITLE 4200 O/P CONT PCB ASSY

DRAWING NUMBER 400550 SHEET 7 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
RL1	330029	RELAY 2P2W	SDS	DS2E-DC24V	3
RL2	330029	RELAY 2P2W	SDS	DS2E-DC24V	–
RL3	330031	RELAY 2P N/O 2P N/C	SDS	S2-24V	2
RL4	330031	RELAY 2P N/O 2P N/C	SDS	S2-24V	–
RL5	330030	RELAY 4P N/O	SDS	S4-24V	2
RL6	330030	RELAY 4P N/O	SDS	S4-24V	–
RL7	330029	RELAY 2P2W	SDS	DS2E-DC24V	–
L1	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	3
L2	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
L3	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
	410274-4	PCB			1
	605059/A	8 WAY DIL SOCKET			2
	605060/A	14 WAY DIL SOCKET			3
	605061/A	16 WAY DIL SOCKET			3
	602001	FSV TERMINAL	MOLEX	02-04-5114	2
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	17
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAINS	No 2	24
	630119	PCB EJECTOR. ORANGE	RICHCO	CBE	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.													
E.C.O													
DATE													
CHKD													

DATE	21.3.84
DRAWN	IL
CHECKED	
APPROVED	
DATE	

datron ELECTRONICS LTD

TITLE 4200 O/P CONT. PCB ASSY

DRAWING NUMBER 400550 SHEET 8 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
F1	920120	FUSE 1A 125V 7mm	LITTLEFUSE	275 001	3
F2	920120	FUSE 1A 125V 7mm	LITTLEFUSE	275 001	—
F3	920120	FUSE 1A 125V 7mm	LITTLEFUSE	275 001	—
	620003	SOLDER PIN	HARWIN	H2105	2
	540006	1/·4 PTFE WIRE BLACK			A/R
	590004	SLEEVE Ø1.0 PTFE			A/R
	900004	SILICONE RUBBER COMP	RS	555-588	A/R
	512999	7/·2 PTFE INS WIRE (WHITE)			A/R
	604046	3 WAY ·1" PCB PLUG GD PL.	MOLEX	22-10-2031	2
	605127	2 WAY ·1" SHORTING SKT.	ASSMANN	AKSPL-G	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O													
DATE													
CHKD													

DATE 21.3.84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 O/P CONT PCB ASSY

DRAWING NUMBER 400550

SHEET 9 OF 9

DRAWING No.	CHK'D		
400446	DATE	5.7.85	29.10.85
	ECO	1958	2045
	REVISION	8.0	8.1
	ISSUE		

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION
COMPONENT LAYOUT	480446	1	8.0
SCHEMATIC	430446	1	8.0
SCHEMATIC	430446	2	8.0
SCHEMATIC	430446	3	8.0 8.1
SCHEMATIC	430446	4	8.0
SCHEMATIC	430446	5	8.0
FUNCTIONAL TEST PROC.	460446/FT	1-7	8.0
FUNC. TEST TICK LIST	470446/FT	1	8.0

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APP'D
IL	MJO	
DATE 5.7.85	DATE 10.7.85	DATE 23.7.85

TITLE: 4200 SINE SOURCE PCB ASSY.

DRAWING No. 400446 SHEET 1 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	019091	9k09 1% 1/8W 50ppm MF	HOLCO	H8C	1
R2	011821	1k82 1% 1/8W 50ppm MF	HOLCO	H8C	1
R3	012151	2k15 1% 1/8W 50ppm MF	HOLCO	H8C	1
R4	012611	2k61 1% 1/8W 50ppm MF	HOLCO	H8C	1
R5	000223	22k 5% 1/3W CARBON	MULLARD	CR25	1
R6	000222	2k2 5% 1/3W CARBON	MULLARD	CR25	1
R7	011502	15k 1% 1/8W 50ppm MF	HOLCO	H8C	1
R8	014321	4k32 1% 1/8W 50ppm MF	HOLCO	H8C	2
R9	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	7
R10	000100	10R 5% 1/3W CARBON	MULLARD	CR25	6
R11	000101	100R 5% 1/3W CARBON	MULLARD	CR25	10
R12	000470	47R 5% 1/3W CARBON	MULLARD	CR25	9
R13	013012	30k1 1% 1/8W 50ppm MF	HOLCO	H8C	1
R14	000272	2k7 5% 1/3W CARBON	MULLARD	CR25	2
R15	000103	10k 5% 1/3W CARBON	MULLARD	CR25	8
R16	000228	2R2 5% 1/3W CARBON	MULLARD	CR25	1
R17	000100	10R 5% 1/3W CARBON	MULLARD	CR25	—
R18	000152	1k5 5% 1/3W CARBON	MULLARD	CR25	4
R19	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	4
R20	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R21	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R22	000123	12k 5% 1/3W CARBON	MULLARD	CR25	1
R23	000122	1k2 5% 1/3W CARBON	MULLARD	CR25	2

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4	5	5	6	7	8
ECO	—	1725	1742	1770	1780	1801	1827 1839 1849	1885	1905
DATE	26.5.84	10.10.84	31.10.84	22.11.84	4-12-84	2.1.85	13.2.85	9.4.85	1-5-85
CHK'D		MD	MD	MD	MD	MD	MD	MD	MD

DATE	24.7.84
DRAWN	
CHECKED	R.K. COGGAN
APPROVED	
DATE	24.7.84

datron ELECTRONICS LTD

TITLE: 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446 SHEET 2 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	000332	3k3 5% 1/3W CARBON	MULLARD	CR25	1
R25	000102	1k 5% 1/3W CARBON	MULLARD	CR25	5
R26	000272	2k7 5% 1/3W CARBON	MULLARD	CR25	–
R27	011001	1k 1% 1/8W 50ppm MF	HOLCO	H8C	2
R28	012001	2k 1% 1/8W 50ppm MF	HOLCO	H8C	1
R29	011001	1k 1% 1/8W 50ppm MF	HOLCO	H8C	–
R30	047153	715k 1% 1/2W 100ppm CF	ALLEN BRADLEY	CC	2
R31	013573	357k 1% 1/8W 50ppm MF	HOLCO	H8C	2
R32	011783	178k 1% 1/8W 50ppm MF	HOLCO	H8C	2
R33	018872	88k7 1% 1/8W 50ppm MF	HOLCO	H8C	2
R34	014422	44k2 1% 1/8W 50ppm MF	HOLCO	H8C	2
R35	012262	22k6 1% 1/8W 50ppm MF	HOLCO	H8C	2
R36	011132	11k3 1% 1/8W 50ppm MF	HOLCO	H8C	2
R37	015621	5k62 1% 1/8W 50ppm MF	HOLCO	H8C	2
R38	012801	2k8 1% 1/8W 50ppm MF	HOLCO	H8C	2
R39	000152	1k5 5% 1/3W CARBON	MULLARD	CR25	–
R40	000152	1k5 5% 1/3W CARBON	MULLARD	CR25	–
R41		FSV (PART OF KIT WITH Q29)			–
R42	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R43	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R44	000102	1k 5% 1/3W CARBON	MULLARD	CR25	–
R45	000102	1k 5% 1/3W CARBON	MULLARD	CR25	–
R46	000331	330R 5% 1/3W CARBON	MULLARD	CR25	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

No.														
ECO														
DATE														
CHKD														

DATE 24.7.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY.

DRAWING NUMBER 400446 SHEET 3 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R47	001182	1k8 5% 1/2W CARBON	MULLARD	CR37	2
R48	011823	182k 1% 1/8W 50ppm MF	HOLCO	H8C	1
R49	067503	50k POT 20 TURN CERMET	BECKMAN	68X	2
R50	067503	50k POT 20 TURN CERMET	BECKMAN	68X	–
R51	014990	499R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R52	063100	10R POT 3/8 SQ CERMET	BECKMAN	72P	1
R53	014751	4k75 1% 1/8W 50ppm MF	HOLCO	H8C	3
R54	012218	22R1 1% 1/8W 50ppm MF	HOLCO	H8C	1
R55	047153	715k 1% 1/2W 100ppm CF	ALLEN BRADLEY	CC	–
R56	013573	357k 1% 1/8W 50ppm MF	HOLCO	H8C	–
R57	011783	178k 1% 1/8W 50ppm MF	HOLCO	H8C	–
R58	018872	88k7 1% 1/8W 50ppm MF	HOLCO	H8C	–
R59	014422	44k2 1% 1/8W 50ppm MF	HOLCO	H8C	–
R60	012262	22k6 1% 1/8W 50ppm MF	HOLCO	H8C	–
R61	011132	11k3 1% 1/8W 50ppm MF	HOLCO	H8C	–
R62	015621	5k62 1% 1/8W 50ppm MF	HOLCO	H8C	–
R63	012801	2k8 1% 1/8W 50ppm MF	HOLCO	H8C	–
R64	013321	3k32 1% 1/8W 50ppm MF	HOLCO	H8C	2
R65	013321	3k32 1% 1/8W 50ppm MF	HOLCO	H8C	–
R66	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R67	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R68	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	–
R69	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

No.														
ECO														
DATE														
CHKD														

DATE 24.7.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446 SHEET 4 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R70	011501	1k5 1% 1/8W 50ppm MF	HOLCO	H8C	2
R71	011501	1k5 1% 1/8W 50ppm MF	HOLCO	H8C	–
R72	000102	1k 5% 1/3W CARBON	MULLARD	CR25	–
R73	000102	1k 5% 1/3W CARBON	MULLARD	CR25	–
R74	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	–
R75	014990	499R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R76	000331	330R 5% 1/3W CARBON	MULLARD	CR25	–
R77	001182	1k8 5% 1/2W CARBON	MULLARD	CR37	–
R78	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R79	000512	5k1 5% 1/3W CARBON	MULLARD	CR25	–
R80	000512	5k1 5% 1/3W CARBON	MULLARD	CR25	2
R81	000822	8k2 5% 1/3W CARBON	MULLARD	CR25	–
R82	000822	8k2 5% 1/3W CARBON	MULLARD	CR25	5
R83	000822	8k2 5% 1/3W CARBON	MULLARD	CR25	–
R84	000822	8k2 5% 1/3W CARBON	MULLARD	CR25	–
R85	000152	1k5 5% 1/3W CARBON	MULLARD	CR25	–
R86	000433	43k 5% 1/3W CARBON	MULLARD	CR25	–
R87	000822	8k2 5% 1/3W CARBON	MULLARD	CR25	1
R88	000471	470R 5% 1/3W CARBON	MULLARD	CR25	–
R89	000362	3k6 5% 1/3W CARBON	MULLARD	CR25	4
R90	000470	47R 5% 1/3W CARBON	MULLARD	CR25	2
R91	013161	FSV (3k16 1% NOM)	HOLCO	H8C	–
R92	000122	1k2 5% 1/3W CARBON	MULLARD	CR25	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 24.7.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY.

DRAWING NUMBER 400446

SHEET 5 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R93	000470	47R 5% 1/3W CARBON	MULLARD	CR25	–
R94	000470	47R 5% 1/3W CARBON	MULLARD	CR25	–
R95	000470	47R 5% 1/3W CARBON	MULLARD	CR25	–
R96	011872	18k7 1% 1/8W 50ppm MF	HOLCO	H8C	2
R97	000104	100k 5% 1/3W CARBON	MULLARD	CR25	2
R98	011378	13R7 1% 1/8W 50ppm MF	HOLCO	H8C	2
R99	000104	100k 5% 1/3W CARBON	MULLARD	CR25	–
R100	011872	18k7 1% 1/8W 50ppm MF	HOLCO	H8C	–
R101	011378	13R7 1% 1/8W 50ppm MF	HOLCO	H8C	–
R102	000471	470R 5% 1/3W CARBON	MULLARD	CR25	–
R103	013091	3k09 1% 1/8W 50ppm MF	HOLCO	H8C	2
R104	011541	1k54 1% 1/8W 50ppm MF	HOLCO	H8C	2
R105	011541	1k54 1% 1/8W 50ppm MF	HOLCO	H8C	–
R106	013091	3k09 1% 1/8W 50ppm MF	HOLCO	H8C	–
R107	000470	47R 5% 1/3W CARBON	MULLARD	CR25	4
R108	017871	7k87 1% 1/8W 50ppm MF	HOLCO	H8C	1
R109	000101	100R 5% 1/3W CARBON	MULLARD	CR25	–
R110	000225	2M210% 1/3W CARBON	MULLARD	CR25	1
R111		NOT USED			–
R112	000100	10R 5% 1/3W CARBON	MULLARD	CR25	–
R113	000362	3k6 5% 1/3W CARBON	MULLARD	CR25	–
R114	000470	47R 5% 1/3W CARBON	MULLARD	CR25	–
R115	000470	47R 5% 1/3W CARBON	MULLARD	CR25	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 24.7.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB. ASSY

DRAWING NUMBER 400446

SHEET 6 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R116	000470	47R 5% 1/3W CARBON	MULLARD	CR25	—
R117	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R118	012432	24k3 1% 1/8W 50ppm MF	HOLCO	H8C	2
R119	012432	24k3 1% 1/8W 50ppm MF	HOLCO	H8C	—
R120	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	—
R121	017501	7k5 1% 1/8W 50ppm MF	HOLCO	H8C	1
R122	011002	FSV (10k 1% NOM)	HOLCO	H8C	—
R123	066103	10k POT 3/8 SQ-VERT CERMET	BECKMAN	72XW	1
R124	000100	10R 5% 1/3W CARBON	MULLARD	CR25	—
R125	000100	10R 5% 1/3W CARBON	MULLARD	CR25	—
R126	001182	1k8 5% 1/2W CARBON	MULLARD	CR37	2
R127	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R128	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R129	011211	1k21 1% 1/8W 50ppm MF	HOLCO	H8C	1
R130	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	—
R131	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	—
R132	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R133	001182	1k8 5% 1/2W CARBON	MULLARD	CR37	—
R134	014321	4k32 1% 1/8W 50ppm MF	HOLCO	H8C	—
R135	012491	2k49 1% 1/8W 50ppm MF	HOLCO	H8C	2
R136	090063	PTC THERMISTOR	TEXAS	TSP102k	2
R137	090063	PTC THERMISTOR	TEXAS	TSP102k	—
R138	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 24.7.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446

SHEET 7 OF 26

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R139	000100	10R 5% 1/3W CARBON	MULLARD	CR25	—
R140	000202	2k 5% 1/3W CARBON	MULLARD	CR25	1
R141	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R142	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R143	012491	2k49 1% 1/8W 50ppm MF	HOLCO	H8C	—
R144	011008	10R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R145	000221	220R 5% 1/3W CARBON	MULLARD	CR25	2
R146	000221	220R 5% 1/3W CARBON	MULLARD	CR25	—
R147	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R148	000108	1R 5% 1/3W CARBON	MULLARD	CR25	1
R149	013161	FSV (3k16 1% NOM)	HOLCO	H8C	—
R150	000471	470R 5% 1/3W CARBON	MULLARD	CR25	—
R151	014751	4k75 1% 1/8W 50ppm MF	HOLCO	H8C	—
R152	015230	523R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R153	014320	432R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R154	014751	4k75 1% 1/8W 50ppm MF	HOLCO	H8C	—
R155	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	—
R156	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	—
R157	000471	470R 5% 1/3W CARBON	MULLARD	CR25	—
R158	000220	22R 5% 1/3W CARBON	MULLARD	CR25	1
R159	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	—
R160		NOT FITTED			—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 24.7.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446

SHEET 8 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
AN1	090017	100k x7 2% NETWORK	BECKMAN	L08-1-R100K	1
AN2	090139	2k2 x4 2% SIL.NETWORK	BECKMAN	L08-3-R2K2	1
AN3	090131	10k x4 2% SIL.NETWORK	BECKMAN	L08-3-R10K	6
AN4	090132	4k7 x4 2% SIL. NETWORK	BECKMAN	L08-3-R4K7	1
AN5	090140	22k x9 2% SIL. NETWORK	BECKMAN	L10-1-R22K	2
AN6	090141	1M x 9 2% SIL. NETWORK	BECKMAN	L10-1-R1M	2
AN7	090131	10k x4 2% SIL.NETWORK	BECKMAN	L08-3-R10K	—
AN8	090140	22k x9 2% SIL.NETWORK	BECKMAN	L10-1-R22K	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS												
ECO												
DATE												
CHKD												

DATE 24.7.84 | datron ELECTRONICS LTD

DRAWN IL | TITLE 4200 SINE SOURCE PCB ASSY.

CHECKED | APPROVED | DATE

DRAWING NUMBER 400446 | SHEET 9 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
AN9	090141	1M x 9 2% SIL.NETWORK	BECKMAN	L10-1-R1M	—
AN10	090131	10k x4 2% SIL. NETWORK	BECKMAN	L08-3-R10K	—
AN11	090131	10k x4 2% SIL. NETWORK	BECKMAN	L08-3-R10K	—
AN12	090086	100k x8 2% NETWORK	AB	761-3-100K	1
AN13	090131	10k x4 2% SIL.NETWORK	BECKMAN	L08-3-R10K	—
AN14	090142	10k x4 0·5% DIL NETWORK	BECKMAN	694-3-R10KD	1
AN15	090136	2k x8 0·5% DIL NETWORK	BECKMAN	698-3-R2KD	3
AN16	090136	2k x8 0·5% DIL NETWORK	BECKMAN	698-3-R2KD	—
AN17	090131	10k x4 2% SIL. NETWORK	BECKMAN	L08-3-R10K	—
AN18	090136	2k x8 0·5% DIL. NETWORK	BECKMAN	698-3-R2KD	—
AN19	090143	500R x4 0·5% DIL.NETWORK	BECKMAN	694-3-R500D	1
C1	102100	10pF 5% 500V CER DISC	ITT	CD10	4
C2	102470	47pF 5% 500V CER DISC	ITT	CD10	2
C3	102470	47pF 5% 500V CER DISC	ITT	CD10	—
C4	102221	220pF 10% 500V CER DISC	ITT	CD10	3
C5	102471	470pF 10% 500V CER DISC	ITT	CD10	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS												
ECO												
DATE												
CHKD												

DATE 24. 7. 84 | datron ELECTRONICS LTD

DRAWN IL | TITLE 4200 SINE SOURCE PCB ASSY

CHECKED | APPROVED | DATE

DRAWING NUMBER 400446 | SHEET 10 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C6	102102	1nF 10% 500V CER DISC	ITT	CD10	15
C7	150015	10µF 20% 35V DIP TANT	UNION CARBIDE	K10E35	4
C8	150015	10µF 20% 35V DIP TANT	UNION CARBIDE	K10E35	–
C9	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	10
C10	104026	47nF +50 −20 % 50V CER DISC	SIEMENS	B37449	30
C11	104026	47nF +50 −20 % 50V CER DISC	SIEMENS	B37449	–
C12	104026	47nF +50 −20 % 50V CER DISC	SIEMENS	B37449	–
C13	104026	47nF +50 −20 % 50V CER DISC	SIEMENS	B37449	–
C14	150015	10µF 20% 35V DIP TANT	UNION CARBIDE	K10E35	–
C15	104026	47nF +50 −20 % 50V CER DISC	SIEMENS	B37449	–
C16	110040	33nF 20% 63V POLYESTER	WIMA	MKS2	1
C17	150021	22µF 20% 25V DIP TANT	UNION CARBIDE	K22E25	2
C18	110039	470nF 20% 63V POLYESTER	WIMA	MKS2	1
C19	104026	47nF +50 −20 % 50V CER DISC	SIEMENS	B37449	–
C20	102471	470pF 10% 500V CER DISC	ITT	CD10	–
C21	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	–
C22	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	–
C23	102102	1nF 10% 500V CER DISC	ITT	CD10	–
C24	104026	47nF +50 −20 % 50V CER DISC	SIEMENS	B37449	–
C25	120034	220nF 1% 63V POLYCARB	ASHCROFT	A2B2201E	2
C26	102100	10pF 5% 500V CER DISC	ITT	CD10	–
C27	102100	10pF 5% 500V CER DISC	ITT	CD10	–
C28	120035	22nF 1% 400V POLYCARB	ASHCROFT	A2B22004E	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O.													
DATE													
CHKD													

DATE 24. 7. 84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY.

DRAWING NUMBER 400446 | SHEET 11 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C29	102220	22pF 5% 500V CER DISC	ITT	CD10	3
C30	104017	0p56F ±0·1pF 500V CER DISC	ITT	CD08AG0P56BS	2
C31	102108	1pF ± ·5pF 500V CER DISC	ITT	CD06	2
C32	102188	1p8F ± ·5pF 500V CER DISC	ITT	CD06	2
C33	102398	3p9F ± ·5pF 500V CER DISC	ITT	CD08	2
C34	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	–
C35	102102	1nF 10% 500V CER DISC	ITT	CD10	–
C36	130083	2nF 1% 160V POLYSTYRENE	MULLARD	425	2
C37	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	7
C38	102478	4p7F ± ·5pF 500V CER DISC	ITT	CD08	9
C39	102101	100pF 10% 500V CER DISC	ITT	CD10	3
C40	102278	2p7F ± ·5pF 500V CER DISC	ITT	CD08	2
C41	130084	110pF 1% 630V POLYSTYRENE	MULLARD	427	2
C42	130042	100pF 1% 630V POLYSTYRENE	SUFLEX	HS	2
C43	102478	4p7F ± ·5pF 500V CER DISC	ITT	CD08	–
C44	102338	3p3F ± ·5pF 500V CER DISC	ITT	CD08	3
C45	104026	47nF +50 −20 % 50V CER DISC	SIEMENS	B37449	–
C46	102102	1nF 10% 500V CER DISC	ITT	CD10	–
C47	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	–
C48	104026	47nF +50 −20 % 50V CER DISC	SIEMENS	B37449	–
C49	102478	4p7F ± ·5pF 500V CER DISC	ITT	CD08	–
C50	120034	220nF 1% 63V POLYCARB	ASHCROFT	A2B22101E	–
C51	120035	22nF 1% 400V POLYCARB	ASHCROFT	A2B22004E	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O.													
DATE													
CHKD													

DATE 24. 7. 84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446 | SHEET 12 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
CS2	104017	0p56F ±0·1pF 500V CER DISC	ITT	GD08AG0P56BS	—
C53	104026	47nF +50% −20% 50V CER DISC	SIEMENS	B37449	—
C54	102478	4p7F ±·5pF 500V CER DISC	ITT	CD08	—
C55	104026	47nF +50% −20% 50V CER DISC	SIEMENS	B37449	—
C56	102108	1pF ±·5pF 500V CER DISC	ITT	CD06	—
C57	102188	1p8F ±·5pF 500V CER DISC	ITT	CD06	—
C58	102398	3p9F ±·5pF 500V CER DISC	ITT	CD08	—
C59	104026	47nF +50% −20% 50V CER DISC	SIEMENS	B37449	—
C60	104026	47nF +50% −20% 50V CER DISC	SIEMENS	B37449	—
C61	102478	4p7F ±·5pF 500V CER DISC	ITT	CD08	—
C62	130083	2nF 1% 160V POLYSTYRENE	MULLARD	425	—
C63	104026	47nF +50% −20% 50V CER DISC	SIEMENS	B37449	—
C64	102101	100pF 10% 500V CER DISC	ITT	CD10	—
C65	102278	2p7F ±·5pF 500V CER DISC	ITT	CD08	—
C66	130084	110pF 1% 630V POLYSTYRENE	MULLARD	427	—
C67	130042	100pF 1% 630V POLYSTYRENE	SUFLEX	HS	—
C68	102478	4p7F ±·5pF 500V CER DISC	ITT	CD08	—
C69	102338	3p3F ±·5pF 500V CER DISC	ITT	CD08	—
C70	104026	47nF +50% −20% 50V CER DISC	SIEMENS	B37449	—
C71	102102	1nF 10% 500V CER DISC	ITT	CD10	—
C72	150020	10μF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C73	102478	4p7F ±·5pF 500V CER DISC	ITT	CD08	—
C74	102220	22pF 5% 500V CER DISC	ITT	CD10	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 24.7.84 | DRAWN | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY.

DRAWING NUMBER 400446 | SHEET 13 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C75	102102	1nF 10% 500V CER DISC	ITT	CD10	—
C76	110041	10nF 20% 100V POLYESTER	WIMA	FKS2	3
C77	102102	1nF 10% 500V CER DISC	ITT	CD10	—
C78	110041	10nF 20% 100V POLYESTER	WIMA	FKS2	—
C79	102102	1nF 10% 500V CER DISC	ITT	CD10	—
C80	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	—
C81	102102	1nF 10% 500V CER DISC	ITT	CD10	—
C82	102182	1n8F 20% 500V CER DISC	ITT	CD10	1
C83	102102	1nF 10% 500V CER DISC	ITT	CD10	—
C84	102102	1nF 10% 500V CER DISC	ITT	CD10	—
C85	102102	1nF 10% 500V CER DISC	ITT	CD10	—
C86	102221	220pF 10% 500V CER DISC	ITT	CD10	—
C87	104026	47nF +50% −20% 50V CER DISC	SIEMENS	B37449	—
C88	104026	47nF +50% −20% 50V CER DISC	SIEMENS	B37449	—
C89	110046	1μF 20% 50V POLYESTER	WIMA	MKS2	1
C90	104026	47nF +50% −20% 50V CER DISC	SIEMENS	B37449	—
C91	104026	47nF +50% −20% 50V CER DISC	SIEMENS	B37449	—
C92	102331	330pF 10% 500V CER DISC	ITT	CD10	1
C93	104026	47nF +50% −20% 50V CER DISC	ITT	B37449	—
C94	104026	47nF +50% −20% 50V CER DISC	ITT	B37449	—
C95	101103	10nF 25% 250V CER DISC	ITT	CD10	1
C96	150010	330nF 20% 35V DIP TANT	UNION CARBIDE	KR33E35	1
C97	102101	100pF 10% 500V CER DISC	ITT	CD10	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 24.7.84 | DRAWN | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446 | SHEET 14 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
C98	110042	100nF 20% 63V POLYESTER	WIMA	CD10	—
C99	110042	100nF 20% 63V POLYESTER	WIMA	CD10	—
C100	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C101	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C102	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C103	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C104	102478	4p7F ±·5pF 500V CER DISC	ITT	CD08	—
C105	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C106	102102	1nF 10% 500V CER DISC	ITT	CD10	—
C107	110042	100nF 20% 63V POLYESTER	WIMA	CD10	—
C108	110015	15nF 20% 63V POLYESTER	WIMA	MKS2	1
C109	110041	10nF 20% 100V POLYESTER	WIMA	FKS2	—
C110	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C111	110042	100nF 20% 63V POLYESTER	WIMA	CD10	—
C112	102221	220pF 10% 500V CER DISC	ITT	CD10	—
C113, C114	104026	47nF +50 -20% 50V CER DISC	ITT	B37449	—
C115	150015	10µF 20% 35V DIP TANT	UNION CARBIDE	K10E35	—
C116	102478	4p7F ±·5% 500V CER DISC	ITT	CD08	—
C117	102102	1nF 10% 500V CER DISC	ITT	CD10	—
C118	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C119	102338	3p3F ±·5pF 500V CER DISC	ITT	CD08	—
C120	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C121	150023	33µF 20% 25V DIP TANT	UNION CARBIDE	K33E25	3

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O.													
DATE													
CHKD													

DATE 24.7.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446

SHEET 15 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C122	150023	33µF 20% 25V DIP TANT	UNION CARBIDE	K33E25	—
C123	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C124	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C125	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C126	150023	33µF 20% 25V DIP TANT	UNION CARBIDE	K33E25	—
C127	102220	22pF 5% 500V CER DISC	ITT	CD10	—
C128	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C129	150021	22µF 20% 25V DIP TANT	UNION CARBIDE	K22E25	—
C130	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	—
C131	102102	1nF 10% 500V CER DISC	ITT	CD10	—
C132		NOT FITTED			—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O.													
DATE													
CHKD													

DATE 24.7.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446

SHEET 16 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D1	220010	Si HOT CARRIER DIODE	HP	HSCH1001/IN6263	4
D2	210091	9V1 400mW ZENER	MULLARD	BZY88C9V1	3
D3	210150	15V 400mW ZENER	MULLARD	BZY88C15	1
D4	210091	9V1 400mW ZENER	MULLARD	BZY88C9V1	–
D5	213009	15V 5W ZENER	UNITRODE	TVS515	4
D6	213009	15V 5W ZENER	UNITRODE	TVS515	–
D7	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	14
D8	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D9	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D10	210043	4V3 400mW ZENER	MULLARD	BZY88C4V3	4
D11	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D12	210043	4V3 400mW ZENER	MULLARD	BZY88C4V3	–
D13	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D14	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D15	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D16	210043	4V3 400mW ZENER	MULLARD	BZY88C4V3	–
D17	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D18	210043	4V3 400mW ZENER	MULLARD	BZY88C4V3	–
D19	210091	9V1 400mW ZENER	MULLARD	BZY88C9V1	–
D20	213011	1V5 250mW ZENER	MULLARD	BZV46-1V5	2
D21	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D22	213011	1V5 250mW ZENER	MULLARD	BZV46-1V5	–
D23	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 24.7.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446

SHEET 17 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D24	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	2
D25	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	–
D26	213023	6V4 100ppm ZENER	MOTOROLA	IN4575	2
D27	213009	15V 5W ZENER	UNITRODE	TVS515	–
D28	220010	Si HOT CARRIER DIODE	HP	HSCH1001/IN6263	–
D29	220010	Si HOT CARRIER DIODE	HP	HSCH1001/IN6263	–
D30	213023	6V4 100ppm ZENER	MOTOROLA	IN4575	–
D31	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D32	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D33	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D34	213009	15V 5W ZENER	UNITRODE	TVS515	–
D35	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D36	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	2
D37	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	–
D38	220010	Si HOT CARRIER DIODE	HP	HSCH1001/IN6263	–
D39	213012	2V0 250mW ZENER	MULLARD	BZV46-2V0	2
D40	210062	6V2 400mW ZENER	MULLARD	BZY88C6V2	2
D41	210062	6V2 400mW ZENER	MULLARD	BZY88C6V2	–
D42	213012	2V0 250mW ZENER	MULLARD	BZV46-2V0	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 24.7.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446

SHEET 18 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
Q1	230065	N-CHAN I LIM 4·7mA	SILICONIX	J511	4
Q2	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	6
Q3	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q4	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	12
Q5	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q6	230065	N-CHAN I LIM 4·7mA	SILICONIX	J511	—
Q7	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q8	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	5
Q9	230065	N-CHAN I LIM 4·7mA	SILICONIX	J511	—
Q10		NOT USED			—
Q11	240032	Si NPN TRANSISTOR	MOTOROLA	BF393/TO18	5
Q12	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q13	230065	N-CHAN I LIM 4·7mA	SILICONIX	J511	—
Q14	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q15	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q16	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q17	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q18	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q19	230001	N-CHAN I LIM 1·4mA	SILICONIX	J506	3
Q20	230035	N-CHAN JFET	TELEDYNE	U1897JF	28
Q21	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q22	230035	N-CHAN JFET	TELEDYNE	U1897 JF	—
Q23	230035	N-CHAN JFET	TELEDYNE	U1897 JF	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 24.7.84 | datron ELECTRONICS LTD

DRAWN | TITLE 4200 SINE SOURCE PCB ASSY

CHECKED

APPROVED

DATE | DRAWING NUMBER 400446 | SHEET 19 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q24	230035	N-CHAN JFET	TELEDYNE	U1897 JF	—
Q25	230035	N-CHAN JFET	TELEDYNE	U1897 JF	—
Q26	230035	N-CHAN JFET	TELEDYNE	U1897 JF	—
Q27	230035	N-CHAN JFET	TELEDYNE	U1897 JF	—
Q28	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q29	239060-1	N-CHAN DUAL JFET + R41	DATRON	VCR11 (COLOUR) + H8	1
Q30	260060	334 CURRENT SOURCE	NATIONAL	LM334H	1
Q31	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q32	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q33	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q34	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q35	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q36	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q37	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q38	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q39	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q40	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q41	230046-1	N-CHAN DUAL JFET		SEE DRG	1
Q42	230001	N-CHAN I LIM 1·4mA	SILICONIX	J506	—
Q43	230001	N-CHAN I LIM 1·4mA	SILICONIX	J506	—
Q44	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q45	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	3
Q46	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 24.7.84 | datron ELECTRONICS LTD

DRAWN | TITLE 4200 SINE SOURCE PCB ASSY

CHECKED

APPROVED

DATE | DRAWING NUMBER 400446 | SHEET 20 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q47	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q48	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q49	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q50	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q51	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q52	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q53	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q54	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q55	240017	Si NPN DUAL TRANSISTOR	NATIONAL	LM394	6
Q56	240017	Si NPN DUAL TRANSISTOR	NATIONAL	LM394	—
Q57	240017	Si NPN DUAL TRANSISTOR	NATIONAL	LM394	—
Q58	240017	Si NPN DUAL TRANSISTOR	NATIONAL	LM394	—
Q59	240017	Si NPN DUAL TRANSISTOR	NATIONAL	LM394	—
Q60	240017	Si NPN DUAL TRANSISTOR	NATIONAL	LM394	—
Q61	230050	N-CHAN I LIM 2·4mA	SILICONIX	J508	1
Q62	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	—
Q63	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	—
Q64	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	—
Q65	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	—
Q66	230042	N-CHAN I LIM 3·0mA	SILICONIX	J509	6
Q67	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q68	230035	N-CHAN JFET	TELEDYNE	U1897JF	—
Q69	230035	N-CHAN JFET	TELEDYNE	U1897JF	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 24.7.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446 SHEET 21 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q70	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q71	250008	Si PNP TRANSISTOR	NATIONAL	BC214C/TO18	3
Q72	250008	Si PNP TRANSISTOR	NATIONAL	BC214C/TO18	—
Q73	230042	N-CHAN I LIM 3·0mA	SILICONIX	J509	—
Q74	230003	N-CHAN JFET	TELEDYNE	U1899JF	1
Q75	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q76	239059-1	N-CHAN DUAL JFET KIT	DATRON	VCR11 } SAME COLOUR	1 KIT
Q77	239059-1	N-CHAN DUAL JFET KIT	DATRON	VCR11 }	—
Q78	240032	Si NPN TRANSISTOR	MOTOROLA	BF393/TO18	—
Q79	240032	Si NPN TRANSISTOR	MOTOROLA	BF393/TO18	—
Q80	240032	Si NPN TRANSISTOR	MOTOROLA	BF393/TO18	—
Q81	240032	Si NPN TRANSISTOR	MOTOROLA	BF393/TO18	—
Q82	230042	N-CHAN I LIM 3·0mA	SILICONIX	J509	—
Q83	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	2
Q84	230042	N-CHAN I LIM 3·0mA	SILICONIX	J509	—
Q85	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	—
Q86	240031	Si NPN TRANSISTOR	MOTOROLA	BD139	2
Q87	230042	N-CHAN I LIM 3·0mA	SILICONIX	J509	—
Q88	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q89	230042	N-CHAN I LIM 3·0mA	SILICONIX	J509	—
Q90	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q91	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	—
Q92	250008	Si PNP TRANSISTOR	NATIONAL	BC214C/TO18	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 24.7.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE P.C.B. ASSY

DRAWING NUMBER 400446 SHEET 22 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
Q93	240031	Si NPN TRANSISTOR	MOTOROLA	BD139	–
Q94	250021	Si PNP TRANSISTOR	MOTOROLA	BD140	1
M1	280101	DUAL BCD/BINARY COUNTER	MOTOROLA	MC14569BCP	3
M2	280057	BCD UP/DOWN COUNTER	MOTOROLA	MC14510BCP	1
M3	280008	QUAD 2 I/P NAND	MOTOROLA	MC14011 BCP	1
M4	280011	DUAL D FLIP-FLOP	MOTOROLA	MC14013BCP	2
M5	280101	DUAL BCD/BINARY COUNTER	MOTOROLA	MC14569BCP	–
M6	280076	8 CHANNEL AN MUX	MOTOROLA	MC14051BCL	2
M7	280079	QUAD 2 I/P OR	MOTOROLA	MC14071BCP	1
M8	280076	8 CHANNEL AN MUX	MOTOROLA	MC14051 BCL	–
M9	280101	DUAL BCD/BINARY COUNTER	MOTOROLA	MC14569BCP	–
M10	280025	QUAD ANALOG SWITCH	MOTOROLA	MC14066BCP	1
M11	260073	411 OP AMP	NATIONAL	LF411CN	1
M12	280125	PHASE DETECTOR	NATIONAL	MM74C932N	1
M13	280011	DUAL D FLIP-FLOP	MOTOROLA	MC14013 BCP	–
M14	280080	HEX SCHMITT TRIGGER	NATIONAL	MM74C14N	2
M15	260074	LH0032C FAST FET OP AMP	NATIONAL	LH0032CG	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 24. 7. 84
DRAWN IL.
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446 SHEET 23 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M16	260076	CURRENT MIRROR 1:1	TEXAS	TL011CLP	2
M17	290090	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2002A/XR2202CP	4
M18	260076	CURRENT MIRROR 1:1	TEXAS	TL011CLP	–
M19	260046	2525 OP AMP	HARRIS	HA32527-5	11
M20	290090	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2002A/XR2202CP	–
M21	280080	HEX SCHMITT TRIGGER	NATIONAL	MM74C14N	–
M22	260046	2525 OP AMP	HARRIS	HA32527-5	–
M23	260046	2525 OP AMP	HARRIS	HA32527-5	–
M24	260046	2525 OP AMP	HARRIS	HA32527-5	–
M25	260046	2525 OP AMP	HARRIS	HA32527-5	–
M26	260077	CURRENT MIRROR 2:1	TEXAS	TL012CLP	3
M27	260077	CURRENT MIRROR 2:1	TEXAS	TL012CLP	–
M28	290090	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2002A/XR2202CP	–
M29	280035	BCD/DECIMAL DECODER	MOTOROLA	MC14028BCP	1
M30	260046	2525 OP AMP	HARRIS	HA32527-5	–
M31	260046	2525 OP AMP	HARRIS	HA32527-5	–
M32	260057	5534 OP AMP	SIGNETICS	NE5534N	1
M33	290090	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2002A/XR2202CP	–
M34	290000	NPN TRANSISTOR ARRAY	RCA	CA3083F	2
M35	260042	5532 DUAL OP AMP	SIGNETICS	NE5532N	2
M36	280023	QUAD 2 I/P NOR	MOTOROLA	MC14001UBCP	1
M37	260078	DUAL COMPARATOR	NATIONAL	LM393AN	1
M38	280126	D/A CONVERTER	ANALOG DEVICES	AD7527KN	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 24. 7. 84
DRAWN IL.
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446 SHEET 24 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M39	260033	5V 1/10A REGULATOR	MOTOROLA	MC78L05ACP	1
M40	290000	NPN TRANSISTOR ARRAY	RCA	CA3083F	—
M41	260042	5532 DUAL OP AMP	SIGNETICS	NE5532N	—
M42	280127	10-BIT MULTIPLYING DAC	ANALOG DEVICES	AD7533JN	2
M43	280127	10-BIT MULTIPLYING DAC	ANALOG DEVICES	AD7533JN	—
M44	260046	2525 OP AMP	HARRIS	HA32527-5	—
M45	260027	714 OP AMP	FAIRCHILD	μA714HC	1
M46	260046	2525 OP AMP	HARRIS	HA32527-5	—
M47	260046	2525 OP AMP	HARRIS	HA32527-5	—
M48	260046	2525 OP AMP	HARRIS	HA32527-5	—
M49	260049	319 DUAL COMPARATOR	NATIONAL	LM319N	1
M50	260077	CURRENT MIRROR 2:1	TEXAS	TL012CLP	—
RL1	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	8
RL2	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	—
RL3	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	—
RL4	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	—
RL5	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	—
RL6	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 24.7.84 | DRAWN IL | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446 | SHEET 25 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
RL7	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	—
RL8	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	—
L1	370003	1mH 40Ω RF CHOKE	SIGMA	SC10	2
L2	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	6
L3	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	—
L4	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	—
L5	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	—
L6	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	—
L7	370026	1μH 880mA CHOKE	SIGMA	SC10	1
L8	370003	1mH 40Ω RF CHOKE	SIGMA	SC10	—
L9	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	—
	410171-8	PCB			1
	450450-1	HEATSINK			1
	540002	22SWG BTC WIRE			A/R
	512999	7/-2 PTFE WIRE			A/R
	602001	FSV TERMINAL	MOLEX	02-04-5114	6
	605059/A	8WAY DIL SOCKET			17
	605060/A	14 WAY DIL SOCKET			9
	605061/A	16 WAY DIL SOCKET			15

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 24.7.84 | DRAWN IL | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446 | SHEET 26 OF 27

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	605065	28 WAY DIL SOCKET			1
	604046	3-WAY ·1" PCB PLUG GD.PL.	MOLEX	22-10-2031	2
	611016	M3x8mm POZIPAN STEEL	ZN PL		2
	611025	M3x16mm POZICSK STEEL	ZN PL		1
	612026-1	M3x6mm STANDOFF	DATRON	SEE DRG	1
	613005	M3 INT SHAKEPROOF			2
	615002	M3 FULL NUT STEEL ZN.PL.			2
	620003	SOLDER PIN	HARWIN	H2105 A01	3
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	32
	630024	STEATITE BEAD 16SWG	PARK ROYAL PORCELAIN	Nº2	8
	630107	BRASS STRIP 15·5 x ·38mm	RIGHTON	CZ108 ½H	A/R
	630120	PCB EJECTOR (YELLOW)	RICHCO	CBE	2
	900003	HEATSINK COMPOUND	RS	554-311	A/R
	920089-1	HEATSINK TO-220		SEE DRG	2
	920149	HEATSINK TO8	SOURIAU	TXBF 2-050-033B	1
	605124	10 WAY SOCKET STRIP	AUGAT	510-AG-91D	1⅓
	605127	2WAY ·1" SHORTING SKT	ASSMANN	AKSPL-G	2
	590001	20mm RUBBER SLEEVE.	HELLERMANN.	H15x20.	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

PCB													
ECO													
DATE													
CHKD													

DATE 24.7.84

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 SINE SOURCE PCB ASSY

DRAWING NUMBER 400446

SHEET 27 OF 27

DRAWING No. 400447

	CHK'D	DATE	ECO	REVISION	ISSUE
		4.7.85	1958	12.0	13.0
		14.8.85	1982	12.1	13.1
		9.10.85	1993	12.2	13.2
		9.10.85	1980	13.0	13.3
		12.11.85	2046	13.1	13.4
		12.11.85	2050	13.2	13.5
		12.11.85	2052	13.3	13.6
		12.11.85	2059	13.4	14.0
		12.11.85	2057	13.5	14.1
		12.12.85	2084	13.6	
		12.12.85	2049	14.0	
		21.1.86	2112	14.1	

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION
COMPONENT LAYOUT	480447	1	12.0 12.1 12.2 13.0 13.1 13.2 13.3 13.4 13.5 14.0
SCHEMATIC	430447	1	12.0 12.0 13.0 13.1 14.0
SCHEMATIC	430447	2	12.0 12.1 12.2 13.0 13.1 13.2 13.3 14.0
SCHEMATIC	430447	3	12.0 12.0 13.0 13.0 14.0
SCHEMATIC	430447	4	12.0 12.1 12.2 13.0 13.1 13.6 14.0
SCHEMATIC	430447	5	12.0 12.0 13.0 13.0 14.0
SCHEMATIC	430447	6	12.0 13.0 14.0
FUNCTIONAL TEST PROC	460447/FT	1-5	12.0 13.0 14.0
FUNC. TEST TICK LIST	470447/FT	1	12.0 13.0 14.0
P.C.B	410172	-	10.0 11.0

NOTES

☐ INDICATES NO CHANGE TO DOCS. AT ISSUE LEVEL CHANGE

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD
IL	MJD	[illegible]
DATE 4.7.85	DATE 10.7.85	DATE 23.7.85

TITLE 4200 A.C. PCB. ASSY

DRAWING No. 400447 SHEET 1 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000105	1M 5% 1/3W CARBON	MULLARD	CR25	4
R2	000332	3k3 5% 1/3W CARBON	MULLARD	CR25	2
R3	000101	100R 5% 1/3W CARBON	MULLARD	CR25	17
R4	011001	1k 1% 1/8W 50ppm MF	HOLCO	H8C	4
R5	011003	100k 1% 1/8W 50ppm MF	HOLCO	H8C	4
R6	014021	4k02 1% 1/8W 50ppm MF	HOLCO	H8C	3
R7		NOT USED			-
R8		NOT USED			-
R9	014021	4k02 1% 1/8W 50ppm MF	HOLCO	H8C	-
R10	000104	100k 5% 1/3W CARBON	MULLARD	CR25	7
R11	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R12	000104	100k 5% 1/3W CARBON	MULLARD	CR25	-
R13	011003	100k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R14	011003	100k 1% 1/8W 50ppm MF	HOLCO	H8C	-
R15	090138-1	10k MATCHED PAIR	VISHAY	SEE DRG-	1
R16	000100	10R 5% 1/3W CARBON	MULLARD	CR25	2
R17	000100	10R 5% 1/3W CARBON	MULLARD	CR25	-
R18	080071	178R1 ·1% 3ppm M.FOIL	VISHAY	S102C	2
R19	080071	178R1 ·1% 3ppm M. FOIL	VISHAY	S102C	-
R20	080072	312R8 ·1% 3ppm M. FOIL	VISHAY	S102C	2
R21	080073	100R ·1% 3ppm M. FOIL	VISHAY	S102C	2
R22	080072	312R8 ·1% 3ppm M. FOIL	VISHAY	S102C	-
R23	080073	100R ·1% 3ppm M. FOIL	VISHAY	S102C	-

ISS	9	10	11	12	
E.C.O	1850	1850	1894	1906	SEE SHEET 1 FOR LATEST ISSUE.
DATE	4.3.85	12.3.85	18.4.85	5.6.85	
CHKD	MD	MD	MD	MD	

ISS	1	2	3	4	5	6	7	7	8
E.C.O	RELEASE	1697	1715 1719 1722 1723 1735	1738	1768	1761	1784 1787	1801	1811
DATE	29.8.84	17.9.84	12.10.84	22.10.84	7.11.84	15.11.84	4.12.84	3.1.85	14.1.85
CHKD	MD	MD	MD	MD	MD	MD	MD	MD	MD

DATE 2.7.84

DRAWN IL

CHECKED [illegible]

APPROVED [illegible]

DATE 19.7.84

datron ELECTRONICS LTD

TITLE 4200 A.C. PCB ASSY

DRAWING NUMBER 400447

SHEET 2 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No USED Per Assy.
R24	000121	120R 5% 1/3W CARBON	MULLARD	CR25	2
R25	000390	39R 5% 1/3W CARBON	MULLARD	CR25	2
R26	000121	120R 5% 1/3W CARBON	MULLARD	CR25	—
R27	000103	10k 5% 1/3W CARBON	MULLARD	CR25	7
R28	000104	100k 5% 1/3W CARBON	MULLARD	CR25	—
R29	000104	100k 5% 1/3W CARBON	MULLARD	CR25	—
R30	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R31	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	3
R32	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R33	000390	39R 5% 1/3W CARBON	MULLARD	CR25	—
R34	000101	100R 1% 1/8W 50ppm MF	HOLCO	H8C	—
R35	013920	392R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R36	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R37	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	—
R38	011002	10k 1% 1/8W 50ppm MF	HOLCO	H8C	—
R39	000104	100k 5% 1/3W CARBON	MULLARD	CR25	—
R40	000104	100k 5% 1/3W CARBON	MULLARD	CR25	—
R41	000105	1M 5% 1/3W CARBON	MULLARD	CR25	—
R42	000105	1M 5% 1/3W CARBON	MULLARD	CR25	—
R43	016190	619R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R44	016190	619R 1% 1/8W 50ppm MF	HOLCO	H8C	—
R45	012670	267R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R46	012670	267R 1% 1/8W 50ppm MF	HOLCO	H8C	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 A.C. PCB ASSY

DRAWING NUMBER 400447

SHEET 3 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R47	011001	1k 1% 1/8W 50ppm MF	HOLCO	H8C	—
R48	000220	22R 5% 1/3W CARBON	MULLARD	CR25	1
R49	011001	1k0 1% 1/8W 50ppm MF	HOLCO	H8C	—
R50	011301	1k3 1% 1/8W 50ppm MF	HOLCO	H8C	1
R51	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R52	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R53	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	5
R54	011001	1k 1% 1/8W 50ppm MF	HOLCO	H8C	—
R55		NOT USED			—
R56	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R57	000682	6k8 5% 1/3W CARBON	MULLARD	CR25	1
R58	000470	47R 5% 1/3W CARBON	MULLARD	CR25	3
R59	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R60	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R61	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R62	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R63	000105	1M 5% 1/3W CARBON	MULLARD	CR25	—
R64	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R65	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	—
R66	000102	1k 5% 1/3W CARBON	MULLARD	CR25	2
R67	000392	3k9 5% 1/3W CARBON	MULLARD	CR25	1
R68	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R69	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 AC PCB ASSY

DRAWING NUMBER 400447

SHEET 4 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R70	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R71		NOT USED			—
R72	000272	2k7 5% 1/3W CARBON	MULLARD	CR25	1
R73	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	—
R74	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R75	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R76	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	—
R77	000221	220R 5% 1/3W CARBON	MULLARD	CR25	4
R78	000102	1k 5% 1/3W CARBON	MULLARD	CR25	—
R79	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R80	000821	820R 5% 1/3W CARBON	MULLARD	CR25	2
R81	000223	22k 5% 1/3W CARBON	MULLARD	CR25	5
R82	000223	22k 5% 1/3W CARBON	MULLARD	CR25	—
R83		NOT USED			—
R84	000221	220R 5% 1/3W CARBON	MULLARD	CR25	—
R85	000153	15k 5% 1/3W CARBON	MULLARD	CR25	1
R86	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R87	000332	3k3 5% 1/3W CARBON	MULLARD	CR25	—
R88	000223	22k 5% 1/3W CARBON	MULLARD	CR25	—
R89	000473	47k 5% 1/3W CARBON	MULLARD	CR25	3
R90	000821	820R 5% 1/3W CARBON	MULLARD	CR25	—
R91	000473	47k 5% 1/3W CARBON	MULLARD	CR25	—
R92	000473	47k 5% 1/3W CARBON	MULLARD	CR25	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 AC PCB ASSY

DRAWING NUMBER 400447

SHEET 5 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R93	000273	27k 5% 1/3W CARBON	MULLARD	CR25	1
R94	000432	4k3 5% 1/3W CARBON	MULLARD	CR25	1
R95	000221	220R 5% 1/3W CARBON	MULLARD	CR25	—
R96	000221	220R 5% 1/3W CARBON	MULLARD	CR25	—
R97	013321	3k32 1% 1/8W 50ppm MF	HOLCO	H8C	2
R98	011003	100k 1% 1/8W 50ppm MF	HOLCO	H8C	—
R99	013321	3k32 1% 1/8W 50ppm MF	HOLCO	H8C	—
R100	000470	47R 5% 1/3W CARBON	MULLARD	CR25	—
R101	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R102	011690	169R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R103	011690	169R 1% 1/8W 50ppm MF	HOLCO	H8C	—
R104	000680	68R 5% 1/3W CARBON	MULLARD	CR25	1
R105	014641	4k64 1% 1/8W 50ppm MF	HOLCO	H8C	1
R106	012371	2k37 1% 1/8W 50ppm MF	HOLCO	H8C	1
R107	066104	100k POT 3/8 SQ VERT CERMET	BECKMAN	72XW	1
R108	014640	464R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R109	000470	47R 5% 1/3W CARBON	MULLARD	CR25	—
R110	080074	1111R11 ·1% 3ppm M.FOIL	VISHAY	S102C	1
R111		NOT USED			—
R112	090129-3	12R346/100R	VISHAY	SEE DRG	1
R113	014640	464R 1% 1/8W 50ppm MF	HOLCO	H8C	—
R114	008054	220R 5% 1/5W CARBON	MULLARD	CR16	4
R115	090148-1	100k (MATCHED PAIR WITH R121)	DATRON	SEE DRG	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 AC PCB ASSY

DRAWING NUMBER 400447

SHEET 6 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R116		NOT USED			–
R117		NOT USED			–
R118	080095	1k1 1% 1ppm M.FOIL	VISHAY	S102C	1
R119		NOT USED			–
R120	080075	10k 1% 1ppm M.FOIL	VISHAY	S102C	2
R121	090148-1	10k (MATCHED PAIR WITH R115)	DATRON	SEE DRG	–
R122	066103	10K POT 3/8 SQ VERT CERMET	BECKMAN	72XW	1
R123	080075	10k 1% 1ppm M.FOIL	VISHAY	S102C	–
R124	080043-2	1k ·1% 3ppm M.FOIL	VISHAY	SEE DRG	1
R125	008054	220R 5% 1/5W CARBON	MULLARD	CR16	–
R126	008054	220R 5% 1/5W CARBON	MULLARD	CR16	–
R127		NOT USED			–
R128		NOT USED			–
R129		NOT USED			–
R130		NOT USED			–
R131		NOT USED			–
R132		NOT USED			–
R133		NOT USED			–
R134		NOT USED			–
R135		NOT USED			–
R136		NOT USED			–
R137		NOT USED			–
R138		NOT USED			–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHK'D													

DATE

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 AC PCB ASSY

DRAWING NUMBER 400447

SHEET 7 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R139		NOT USED			–
R140		NOT USED			–
R141	014750	475R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R142	063104	100K POT 3/8 SQ. CERMET	BECKMAN	72P	1
R143	014752	47k5 1% 1/8W 50ppm MF	HOLCO	H8C	1
R144		NOT FITTED			–
R145	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	–
R146	008054	220R 5% 1/5W CARBON	MULLARD	CR16	–
R147	000222	2k2 5% 1/3W CARBON	MULLARD	CR25	1
R148	000101	100R 5% 1/3W CARBON	MULLARD	CR25	–
R149	000101	100R 5% 1/3W CARBON	MULLARD	CR25	–
R150	012002	20k 1% 1/8W 50ppm MF	HOLCO	H8C	1
R151		NOT USED			–
R152	000223	22k 5% 1/3W CARBON	MULLARD	CR25	–
R153	000223	22k 5% 1/3W CARBON	MULLARD	CR25	–
R154	011000	100R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R155		NOT USED			–
R156	014021	4k02 1% 1/8W 50ppm MF	HOLCO	H8C	–
R157	008064	33R 5% 1/5W CARBON	MULLARD	CR16	1
R158	000201	200R 5% 1/3W CARBON	MULLARD	CR25	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHK'D													

DATE

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 AC PCB ASSY.

DRAWING NUMBER

SHEET 8 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
AN1	090136	2k x 8 ±·5% DIL NETWORK	BECKMAN	698-3-R2kD	2
AN2	090144	1k x 8 1% DIL NETWORK	BECKMAN	698-3-R1kF	1
AN3	090136	2k x 8 ±·5% DIL NETWORK	BECKMAN	698-3-R2kD	–
AN4	090096	1M x 8 2% NETWORK	BECKMAN	L09-1-R1M	2
AN5	090096	1M x 8 2% NETWORK	BECKMAN	L09-1-R1M	–
AN6	090137	3k3 x 8 ±·5% DIL NETWORK	BECKMAN	698-3-R3k3D	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O.													
DATE													
CHKD													

DATE	datron ELECTRONICS LTD
DRAWN	TITLE 4200 AC PCB ASSY
CHECKED	
APPROVED	
DATE	DRAWING NUMBER — SHEET 9 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C1	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	4
C2	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	–
C3	101103	10nF 25% 250V CER DISC	ITT	CD10	3
C4	102220	22pF 5% 500V CER DISC	ITT	CD10	1
C5	110030	1nF 20% 100V POLYESTER	WIMA	FKS2	2
C6	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	20
C7	102102	1nF 10% 500V CER DISC	ITT	CD10	4
C8	102102	1nF 10% 500V CER DISC	ITT	CD10	–
C9	102102	1nF 10% 500V CER DISC	ITT	CD10	–
C10	102102	1nF 10% 500V CER DISC	ITT	CD10	–
C11	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	–
C12	120014	2µ2F 10% 63V POLYCARB	ASHCROFT	A2B22218	2
C13	120014	2µ2F 10% 63V POLYCARB	ASHCROFT	A2B22218	–
C14	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	–
C15	102100	10pF 5% 500V CER DISC	ITT	CD10	16
C16	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	–
C17	110030	1nF 20% 100V POLYESTER	WIMA	FKS2	–
C18	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	–
C19	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	8
C20	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	–
C21	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	–
C22	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	–
C23	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O.													
DATE													
CHKD													

DATE	datron ELECTRONICS LTD
DRAWN	TITLE 4200 AC PCB ASSY
CHECKED	
APPROVED	
DATE	DRAWING NUMBER 400447 — SHEET 10 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C24	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C25	120025	4µ7F 10% 63V POLYCARB	ASHCROFT	A2847218	2
C26	120025	4µ7F 10% 63V POLYCARB	ASHCROFT	A2847218	—
C27	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C28	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C29	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C30	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C31	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C32	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C33	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C34	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C35	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C36	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C37	102471	470pF 10% 500V CER DISC	ITT	CD10	4
C38	102471	470pF 10% 500V CER DISC	ITT	CD10	—
C39	100102	1nF 10% 100V CER PLATE	MULLARD	2222 630 19102	1
C40	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C41		NOT USED			—
C42	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C43	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C44	102470	47pF 5% 500V CER DISC	ITT	CD10	2
C45	150020	10µF 20% 25V DIP TANT	UNION CARB	K10E25	—
C46	150015	10µF 20% 35V DIP TANT	UNION CARBIDE	K10E35	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 AC PCB ASSY

DRAWING NUMBER 400447

SHEET 11 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy.
C47	150015	10µF 20% 35V DIP TANT	UNION CARBIDE	K10E35	—
C48	101103	10nF 25% 250V CER DISC	ITT	CD10	—
C49	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C50	100330	33pF 2% 100V CER DISC	MULLARD	2222 683	5
C51	100330	33pF 2% 100V CER DISC	MULLARD	2222 683	—
C52	150006	4µ7F 20% 16V DIP TANT	UNION CARBIDE	K4R7E16	1
C53	150024	47µF 20% 16V DIP TANT	UNION CARBIDE	K47E16	2
C54	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C55	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	—
C56	150024	47µF 20% 16V DIP TANT	UNION CARBIDE	K47E16	—
C57		NOT USED			—
C58		NOT USED			—
C59		NOT USED			—
C60	102338	3p3F ±·5pF 500V CER DISC	ITT	CD08	1
C61		NOT USED			—
C62	102150	15pF 5% 500V CER DISC	ITT	CD10	1
C63		NOT USED			—
C64	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C65	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C66	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C67	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C68	100330	33pF 2% 100V CER DISC	MULLARD	2222 683	—
C69	100330	33pF 2% 100V CER DISC	MULLARD	2222 683	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 AC PCB ASSY

DRAWING NUMBER 400447

SHEET 12 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C70	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C71	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C72	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C73	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C74	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C75	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C76	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C77	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C78	100330	33pF 2% 100V CER DISC	MULLARD	2222 683	—
C79	101103	10nF 25% 250V CER DISC	ITT	CD10	—
C80	102100	10pF 5% 500V CER DISC	ITT	CD10	—
C81	102471	470pF 10% 500V CER DISC	ITT	CD10	—
C82	102471	470pF 10% 500V CER DISC	ITT	CD10	—
C83	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C84	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C85	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C86	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	—
C87	104035	27pF 5% 500V CER DISC	ITT	CD10 27pF POJS N150	1
C88	102222	2n2F 20% 500V CER DISC	ITT	CD10	1
C89	120029	6n8F 20% 100V POLYCARB	WIMA	FKC2	1
C90	102101	100pF 10% 500V CER DISC	ITT	CD10	1
C91	102221	220pF 10% 500V CER DISC	ITT	CD10	1
C92	102470	47pF 5% 500V CER DISC	ITT	CD10	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHK'D													

DATE	datron ELECTRONICS LTD
DRAWN	TITLE 4200 AC PCB ASSY
CHECKED	
APPROVED	
DATE	DRAWING NUMBER 400447 SHEET 13 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D1	213006	5V 5W ZENER	UNITRODE	TVS505	2
D2	213006	5V 5W ZENER	UNITRODE	TVS505	—
D3		NOT USED			—
D4		NOT USED			—
D5	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	21
D6	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	—
D7	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	—
D8	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	—
D9	213022	10V 5W ZENER	UNITRODE	TVS510	4
D10	213022	10V 5W ZENER	UNITRODE	TVS510	—
D11	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	—
D12	213022	10V 5W ZENER	UNITRODE	TVS510	—
D13	213022	10V 5W ZENER	UNITRODE	TVS510	—
D14	213009	15V 5W ZENER	UNITRODE	TVS515	2
D15	213009	15V 5W ZENER	UNITRODE	TVS515	—
D16	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	5
D17	210200	20V 400mW ZENER	MULLARD	BZY88C20	1
D18		NOT USED			—
D19		NOT USED			—
D20	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	7
D21	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	—
D22	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	—
D23	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHK'D													

DATE	datron ELECTRONICS LTD
DRAWN	TITLE 4200 AC PCB ASSY
CHECKED	
APPROVED	
DATE	DRAWING NUMBER 400447 SHEET 14 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D24	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D25	210130	13V 400mW ZENER	MULLARD	BZY88C13	1
D26	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	–
D27	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	–
D28	213002	5V1 5W ZENER	MOTOROLA	IN5338B	2
D29	213002	5V1 5W ZENER	MOTOROLA	IN5338B	–
D30	213023	6V4 100ppm ZENER	MOTOROLA	IN4575	1
D31	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D32	210091	9V1 400mW ZENER	MULLARD	BZY88C9V1	1
D33	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D34	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	2
D35	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	–
D36		NOT USED			–
D37	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D38	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D39	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D40	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D41	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D42	213011	1V5 250mW ZENER	MULLARD	BZV46-1V5	2
D43	213011	1V5 250mW ZENER	MULLARD	BZV46-1V5	–
D44	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D45	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D46	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE	datron ELECTRONICS LTD
DRAWN	TITLE 4200 AC PCB ASSY
CHECKED	
APPROVED	
DATE	DRAWING NUMBER 400447 SHEET 15 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D47	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D48		NOT USED			–
D49	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D50	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D51		NOT USED			–
D52	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D53	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D54	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D55	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D56	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D57	220010	Si HOT CARRIER DIODE	HP	HSCH1001/IN6263	2
D58	220010	Si HOT CARRIER DIODE	HP	HSCH1001/IN6263	–
D59	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D60	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
Q1	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	9
Q2	230069	N-CHAN JFET	SILICONIX	2N4416	2
Q3	230069	N-CHAN JFET	SILICONIX	2N4416	–
Q4	230003	N-CHAN JFET	TELEDYNE	U1899JF	7
Q5	230003	N-CHAN JFET	TELEDYNE	U1899JF	–
Q6	230003	N-CHAN JFET	TELEDYNE	U1899JF	–
Q7	230003	N-CHAN JFET	TELEDYNE	U1899JF	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE	datron ELECTRONICS LTD
DRAWN	TITLE 4200 AC PCB ASSY
CHECKED	
APPROVED	
DATE	DRAWING NUMBER 400447 SHEET 16 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q8	230003	N-CHAN JFET	TELEDYNE	U1899JF	—
Q9	250027	Si DUAL PNP TRANSISTOR	MICRO POWER SYSTEMS	MP351	1
Q10	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	7
Q11		NOT USED			—
Q12	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	—
Q13	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	—
Q14	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	—
Q15	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	—
Q16	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	2
Q17	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	—
Q18	240038	Si NPN DUAL TRANSISTOR	MICRO POWER SYSTEMS	MP318	—
Q19	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q20	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q21	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q22	230042	N-CHAN I LIM 3·0mA	SILICONIX	J509	3
Q23	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q24	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	5
Q25	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q26	240025	DARLINGTON	MOTOROLA	MPSA 13	1
Q27	240013	Si NPN TRANSISTOR	NATIONAL	BC184C/TO18	—
Q28	230042	N-CHAN I LIM 3·0mA	SILICONIX	J509	—
Q29	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q30	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

	ISS	ECO	DATE	CHKD

DATE
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 AC PCB ASSY

DRAWING NUMBER 400447 SHEET 17 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q31	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q32	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q33	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO18	—
Q34	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q35	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	—
Q36	230042	N-CHAN I LIM 3·0mA	SILICONIX	J509	—
Q37	250008	Si PNP TRANSISTOR	NATIONAL	BC214C/TO18	1
Q38	239072-1	N-CHAN JFET SEL	DATRON (2·5V ≤ Vp ≤ 3·5V)	U1899JF (GREEN)	2
Q39	239072-1	N-CHAN JFET SEL	DATRON (2·5V ≤ Vp ≤ 3·5V)	U1899JF (GREEN)	—
Q40	230070	N-CHAN DUAL JFET	SILICONIX	2N5911	2
Q41	230070	N-CHAN DUAL JFET	SILICONIX	2N5911	—
Q42	230065	N-CHAN I LIM 4·7mA	SILICONIX	J511	2
Q43	230065	N-CHAN I LIM 4·7mA	SILICONIX	J511	—
Q44	239075-1	N-CHAN JFET SEL	DATRON (3·5V ≤ Vp ≤ 4·5V)	U1899JF (BLUE)	2
Q45	239075-1	N-CHAN JFET SEL	DATRON (3·5V ≤ Vp ≤ 4·5V)	U1899JF (BLUE)	—
Q46	230035	N-CHAN JFET	TELEDYNE	U1897JF	1
Q47		NOT USED			—
Q48, Q51	230003	N-CHAN JFET	TELEDYNE	U1899JF	—
Q49, Q50		NOT USED			—
M1	260053	7650 OP AMP	INTERSIL	ICL7650CPD	1
M2	260073	411 OP AMP	NATIONAL	LF411CN	2
M3	260042	5532 DUAL OP AMP	SIGNETICS	NE5532N	1
M4	260066	11 OP AMP	NATIONAL	LM11CN	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

	ISS	ECO	DATE	CHKD

DATE
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 AC PCB ASSY

DRAWING NUMBER 400447 SHEET 18 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
M5	260066	11 OP AMP	NATIONAL	LM11CN	–
M6	260075	2903 DUAL COMPARATOR	NATIONAL	LM2903N	2
M7	280025	QUAD ANALOG SWITCH	MOTOROLA	MC14066BCP	4
M8	280025	QUAD ANALOG SWITCH	MOTOROLA	MC14066BCP	–
M9	280124	HEX D-TYPE FLIP-FLOP	MULLARD	HEF40174P	2
M10	280079	QUAD 2 I/P OR	MOTOROLA	MC14071BCP	1
M11	280032	DECADE COUNTER/DIV.	MOTOROLA	MC14017BCP	2
M12	260050	412 DUAL FET I/P OP AMP	NATIONAL	LF412CN	2
M13	280085	QUAD 2 I/P AND	MOTOROLA	MC14081BCP	1
M14	280025	QUAD ANALOG SWITCH	MOTOROLA	MC14066BCP	–
M15	280032	DECADE COUNTER/DIV.	MOTOROLA	MC14017BCP	–
M16	280025	QUAD ANALOG SWITCH	MOTOROLA	MC14066BCP	–
M17	280124	HEX D-TYPE FLIP-FLOP	MULLARD	HEF40174P	–
M18	280122	TRIPLE 3 I/P OR	MOTOROLA	MC14075BCP	2
M19	260050	412 DUAL FET I/P OP AMP	NATIONAL	LF412CN	–
M20	280023	QUAD 2 I/P NOR	MOTOROLA	MC14001UBCP	3
M21	260075	2903 DUAL COMPARATOR	NATIONAL	LM2903N	–
M22	290135	HV TRANSISTOR ARRAY	PLESSEY	SL3183	1
M23	280023	QUAD 2 I/P NOR	MOTOROLA	MC14001UBCP	–
M24	260027	714 OP AMP	FAIRCHILD	µA714HC	1
M25	280035	BCD/DECIMAL DECODER	MOTOROLA	MC14028BCP	1
M26	280023	QUAD 2 I/P NOR	MOTOROLA	MC14001UBCP	–
M27	280122	TRIPLE 3 I/P OR	MOTOROLA	MC14075BCP	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 AC PCB ASSY

DRAWING NUMBER 400447

SHEET 19 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
M28	290090	7X DARLINGTON DRIVER	SPRAGUE/EXAR	ULN2002A/XR2202CP	2
M29	290090	7X DARLINGTON DRIVER	SPRAGUE/EXAR	ULN2002A/XR2202CP	–
M30	280125	PHASE DETECTOR	NATIONAL	MM74C932N	1
M31	260073	411 OP AMP	NATIONAL	LF411CN	–
M32	260087	BIFET OP. AMP	MOTOROLA	MC34081P	1
RL1		NOT USED			–
RL2	330030	RELAY 4P N/O	SDS	S4-24V	5
RL3	330032	RELAY 1P 2W MINIATURE	TAKAMISAWA	MZ24HSC	1
RL4	330029	RELAY 2P2W	SDS	DS2E-DC24V	11
RL5	330029	RELAY 2P2W	SDS	DS2E-DC24V	–
RL6	330025	RELAY 2P2W	SDS	DS2E-DC24V	–
RL7	330029	RELAY 2P2W	SDS	DS2E-DC24V	–
RL8	330029	RELAY 2P2W	SDS	DS2E-DC24V	–
RL9	330030	RELAY 4P N/O	SDS	S4-24V	–
RL10	330030	RELAY 4P N/O	SDS	S4-24V	–
RL11	330031	RELAY 2P N/O 2P N/C	SDS	S2-24V	1
RL12	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	1
RL13	330029	RELAY 2P2W	SDS	DS2E-DC24V	–
RL14	330029	RELAY 2P2W	SDS	DS2E-DC24V	–
RL15	330029	RELAY 2P2W	SDS	DS2E-DC24V	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 AC PCB ASSY

DRAWING NUMBER 400447

SHEET 20 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
RL16	330029	RELAY 2P2W	SDS	DS2E-DC24V	–
RL17	330029	RELAY 2P2W	SDS	DS2E-DC24V	–
RL18	330030	RELAY 4P N/O	SDS	S4-24V	–
RL19	330030	RELAY 4P N/O	SDS	S4-24V	–
RL20	330029	RELAY 2P2W	SDS	DS2E-DC24V	–
L1	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	6
L2	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
L3	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
L4	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
L5		NOT USED			–
L6	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
L7	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
F1	920120	FUSE 1A 125V 7mm	LITTLEFUSE	275 001	2
F2	920120	FUSE 1A 125V 7mm	LITTLEFUSE	275 001	–
	410172-11	PCB - AC			1
	400639-1	ATTENUATOR/CAGE ASSY	DATRON		1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE	datron ELECTRONICS LTD
DRAWN	TITLE 4200 AC PCB ASSY
CHECKED	
APPROVED	
DATE	DRAWING NUMBER 400447 — SHEET 21 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	450442-1	HEATSINK			1
	540002	22 SWG B.T.C. WIRE			A/R
	512999	7/·2 PTFE WIRE			A/R
	560002	7/34 AWG CO-AX			A/R
	590007	LACING CORD		MW/062 BLACK	A/R
	590031	HEATSHRINK SLEEVE 32mm	HELLERMANN ELECTRIC		A/R
	590032	HEATSHRINK SLEEVE 48mm	" "		A/R
	604056	4 WAY ·1" PCB PLUG GD PL	MOLEX	22-10-2041	10
	605059/A	8 WAY DIL SOCKET	COMWAY ELECT.	ICN-083-S3T	12
	605060/A	14 WAY DIL SOCKET	COMWAY ELECT.	ICN-143-S3T	12
	605061/A	16 WAY DIL SOCKET	COMWAY ELECT	ICN-163-S3T	8
LKA, LKB.	605127	2 WAY ·1" SHORTING SKT.	ASSMANN	AKSPL-G	2
	611012	M3 x 12mm POZI-CSK STEEL	ZN PL		3
	611004	M3 x 6mm POZIPAN STEEL	ZN PL		2
	612030-1	M3 x 14mm STANDOFF	DATRON	SEE DRG 612###	1
	612026-1	M3 x 6mm STANDOFF	DATRON	SEE DRG 612###	1
	614001	M3 CLEAR x 4mm STANDOFF	DATRON		3
	613005	M3 INT SHAKEPROOF	ZN PL		1
	613029	M3 WAVY WASHER S.S.			1
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	44
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	No 2 (LARGE)	24

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE	datron ELECTRONICS LTD
DRAWN	TITLE 4200 AC PCB ASSY
CHECKED	
APPROVED	
DATE	DRAWING NUMBER 400447 — SHEET 22 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	630036	STEATITE BEAD 18 SWG	PARK ROYAL PORCELAIN	Nº 1	10
	630121	PCB EJECTOR GREEN	RICHCO	CBE	2
	450424-1	TOP GUARD SHIELD			1
	450425-1	BOTTOM GUARD SHIELD			1
	900003	HEATSINK COMPOUND	RS	544-311	A/R
	590001	SLEEVE Ø3·0 MAX.	HELLERMANN ELECTRIC	H15 x 20mm BLK. HELSYN	2
	590004	SLEEVE Ø 1·0 PTFE	HELLERMANN ELECTRIC	FE10	A/R
LKA, LKB	604046	3 WAY ·1" PCB PLUG GD.PL.	MOLEX	22-10-2031	2
	620003	SOLDER PIN	HARWIN	H2105A01	3

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS												
ECO												
DATE												
CHKD												

DATE 2.7.84

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 AC PCB ASSY

DRAWING NUMBER 400447

SHEET 23 OF 23

DRAWING No. 400555

	CHK'D	DATE	ECO	REVISION	ISSUE
	ND	4-7-85	1958	8-0	1
	AP	1-8-85	1937	8-1	2
	ND	1-8-85	1969	8-2	3
	ND	28.11.85	2069	8-3	4
	AP	5.2.86	2138	8-3	5

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION
COMP. LAYOUT.	480555	1	8-0, 8-1, 8-2
COMP. LAYOUT.	480555	2	8-0, 8-1, 8-2, 8-3
SCHEMATIC	430555	1	8-0
SCHEMATIC	430555	2	8-0, 8-1
FUNCTIONAL TEST PROC.	460555/FT	1-5	8-0
FUNCT. TEST TICK LIST.	470555/FT	1-2	8-0

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN B. JACKSON DATE 4-7-85 | CHK'D DATE 18.7.85 | APPD DATE 23.7.85

TITLE 4200 'I' PCB ASSEMBLY

DRAWING No. 400555 SHEET 1 OF 13

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No USED Per Assy
R1	008037	OR18 10% 2½W WIRE WOUND	WELWYN	W21	1
R2	000820	82R 5% ¼W CARBON	MULLARD	CR25	1
R3	000821	82OR 5% ¼W CARBON	MULLARD	CR25	1
R4	NOT USED				—
R5	000688	6R8 5% ¼ W CARBON	MULLARD	CR25	1
R6	000103	10K 5% ¼W CARBON	MULLARD	CR25	3
R7	000103	10K 5% ¼W CARBON	MULLARD	CR25	—
R8	080084	30R00 ·1% 3ppm M FOIL	VISHAY	S102C	1
R9	080085	300R0 ·1% 3ppm M FOIL	VISHAY	S102C	1
R10	067502	5k POT 20 TURN CERMET	BECKMAN	68X	1
R11	000101	100R 5% ¼W CARBON	MULLARD	CR25	8
R12	000101	100R 5% ¼W CARBON	MULLARD	CR25	-
R13	000393	39K 5% ¼W CARBON	MULLARD	CR25	2
R14	000104	100K 5% ¼ W CARBON	MULLARD	CR25	3
R15	000101	100R 5% ¼ W CARBON	MULLARD	CR25	-
R16	000101	100R 5% ¼ W CARBON	MULLARD	CR25	-
R17	000104	100K 5% ¼ W CARBON	MULLARD	CR25	-
R18	012001	2K00 1% ⅛ W 50ppm MF	HOLCO	HBC	2
R19	012001	2K00 1% ⅛ W 50ppm MF	HOLCO	HBC	-
R20	011302	13K0 1% ⅛ W 50ppm MF	HOLCO	HBC	2
R21	011302	13K0 1% ⅛ W 50ppm MF	HOLCO	HBC	-
R22	000393	39K 5% ¼W CARBON	MULLARD	CR25	-
R23	067202	2K POT 20TURN CERMET	BECKMAN	68X	1

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4	4	5	6	7	8
ECO	RELEASED	1767	1754	1789	1801	1822	1831	1842	1873
DATE	2.11.84	22.11.84	12.12.84	7.12.84	3.1.85	23.1.85	4.2.85	19.2.85	18.3.85
CHK'D		ND	ND	ND	AP	AP	AP	ND	AP

DATE 12 9 84

datron ELECTRONICS LTD

TITLE 4200 I PCB ASSEMBLY.

DRAWING NUMBER 400555 SHEET 2 OF 13

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Ass
R24	NOT USED				
R25	NOT USED				
R26	011001	1K00 1% 1/8W 50ppm MF	HOLCO	HBC	2
R27	012670	267R 1% 1/8W 50ppm MF	HOLCO	HBC	1
R28	011001	1K00 1% 1/8W 50ppm MF	HOLCO	HBC	-
R29	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R30	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R31	066200	20R POT 3/8 SQ. VERT CERMET	BECKMAN	72XW	1
R32	000472	4K7 5% 1/4W CARBON	MULLARD	CR25	1
R33	000103	10K 5% 1/4W CARBON	MULLARD	CR25	-
R34	000102	1K 5% 1/4W CARBON	MULLARD	CR25	3
R35	000102	1K 5% 1/4W CARBON	MULLARD	CR25	-
R36	NOT USED				-
R37	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R38	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R39	013401	3K40 1% 1/8W 50ppm MF	HOLCO	HBC	1
R40	012002	20K0 1% 1/8W 50ppm MF	HOLCO	HBC	1
R41	000104	100K 5% 1/4W CARBON	MULLARD	CR25	-
R42		NOT USED			-
R43	080083	2K000 .01% 3ppm M. FOIL	VISHAY	S102C	1
R44		NOT USED			-
R45	080082	20K000 .01% 3ppm M. FOIL	VISHAY	S102C	2
R46	080083	2K000 .01% 3ppm M. FOIL	VISHAY	S102C	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 12 · 9 · 84
DRAWN
CHECKED 30/10
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 I PCB ASSEMBLY

DRAWING NUMBER 400555 | SHEET 3 OF 13

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Ass
R47	080082	20K000 .01% 3ppm M. FOIL	VISHAY	S102C	-
R48	080083	2 K000 .01% 3ppm M. FOIL	VISHAY	S102C	-
R49	000100	10R 5% 1/4W CARBON	MULLARD	CR25	2
R50	000100	10R 5% 1/4W CARBON	MULLARD	CR25	-
R51	000105	1M 5% 1/4W CARBON	MULLARD	CR25	1
R52	000153	15K 5% 1/4W CARBON	MULLARD	CR25	1
R53 TO R58	NOT USED				-
R59	000101	100R 5% 1/4W CARBON	MULLARD	CR25	-
R60 TO R78	NOT USED				-
R79	080081-1	10R00 0·1%	VISHAY	SEE DRAWING	1
R80	080022-1	0R100 1% M FOIL		SEE DRAWING	1
R81	000471	470R 5% 1/4W CARBON	MULLARD	CR25	1
R82	041825	18M2 1% 1/2W 100ppm CF	ALLEN BRADLEY	CC	2
R83	041825	18M2 1% 1/2W 100ppm CF	ALLEN BRADLEY	CC	-
R84		NOT USED			-
R85	000222	2K2 5% 1/4W CARBON	MULLARD	CR25	1
R86	000102	1K 5% 1/4W CARBON	MULLARD	CR25	-
AN1	090096	1MX8 2% SIL NETWORK	BECKMAN	L09-1-RIM	
AN2	090085	12KX8 2% DIL NETWORK	ALLEN BRADLEY	761-3-12K	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 12 9 84
DRAWN
CHECKED 30/10
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 I PCB ASSEMBLY

DRAWING NUMBER 400555 | SHEET 4 OF 13

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C1	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	15
C2	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C3	NOT USED				-
C4	110035	220nF 20% 63V POLYESTER	WIMA	MKS2	2
C5	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C6	NOT USED				-
C7	NOT USED				-
C8	NOT USED				-
C9	NOT USED				-
C10	NOT USED				-
C11	NOT USED				-
C12	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C13	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	KIR0E35	2
C14	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C15	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	2
C16	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	-
C17	110035	220nF 20% 63V POLYESTER	WIMA	MKS2	-
C18	NOT USED				-
C19	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	4
C20	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C21	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C22	150009	100µF 20% 6V3 DIP TANT	UNION CARBIDE	K100E6V3	1
C23	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 12 9 84
DRAWN
CHECKED 30.10
APPROVED
DATE

datron ELECTRONICS LTD

TITLE '4200' I PCB. ASSEMBLY

DRAWING NUMBER 400555 SHEET 5 OF 13

SIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C24	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C25	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C26	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C27	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C28	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	-
C29	150005	2µ2F 20% 16V DIP TANT	UNION CARBIDE	K2R2E16	2
C30	150005	2µ2F 20% 16V DIP TANT	UNION CARBIDE	K2R2E16	-
C31	102100	10pF 5% 500V CER DISC	ITT	CD10	1
C32	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	K1R0E35	-
C33	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C34	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C35	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C36	150021	22µF 20% 25V DIP TANT	UNION CARBIDE	K22E25	2
C37	150021	22µF 20% 25V DIP TANT	UNION CARBIDE	K22E25	-
C38	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C39	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	-
C40	NOT USED				-
C41	NOT USED				-
C42	NOT USED				-
C43	102330	33pF 5% 500V CER DISC	ITT	CD10	2
C44	102470	47pF 5% 500V CER DISC	ITT	CD10	3
C45	NOT USED				-
C46	NOT USED				-

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 12 9 84
DRAWN
CHECKED 30.10
APPROVED
DATE

datron ELECTRONICS LTD

TITLE '4200' I PCB ASSEMBLY.

DRAWING NUMBER 400555 SHEET 6 OF 13

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C47	102330	33pF 5% 500v CER DISC	ITT	CD10	-
C48	102470	47pF 5% 500v CER DISC	ITT	CD10	-
C49	102470	47pF 5% 500v CER DISC	ITT	CD10	-
D1	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	3
D2	NOT USED				-
D3	210062	6V2 400mW ZENER	MULLARD	BZY88C6V2	2
D4	210062	6V2 400mW ZENER	MULLARD	BZY88C6V2	-
D5	NOT USED				-
D6	210033	3V3 400mW ZENER	MULLARD	BZY88C3V3	1
D7	213009	15V 5W ZENER	UNITRODE	TV5515.	4
D8	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	3
D9	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D10	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	-
D11	213009	15V 5W ZENER	UNITRODE	TV5515	-
D12	213009	15V 5W ZENER	UNITRODE	TV5515	-
D13	213009	15V 5W ZENER	UNITRODE	TV5515	-
D14	NOT USED.				-
D15	NOT USED.				-
D16	200002	1A 50V GP Si DIODE	FAIRCHILD.	IN4001	-
D17	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	-
D18	213006	5V 5W ZENER	UNITRODE	TV5505	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 12 9 84
DRAWN
CHECKED 30.10
APPROVED
DATE

datron ELECTRONICS LTD
TITLE '4200'
I PCB ASSEMBLY
DRAWING NUMBER 400555
SHEET 7 OF 13

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
D19	213006	5V 5W ZENER	UNITRODE	TV5505	-
Q1	250004	Si PNP TRANSISTOR	NATIONAL	2N3906 / TO92	2
Q2	230001	N-CHAN I LIM 1·4mA	TELEDYNE	J 506	3
Q3	250004	Si PNP TRANSISTOR	NATIONAL	2N3906 / TO92	-
Q4	230001	N-CHAN I LIM 1·4mA	TELEDYNE	J 506	-
Q5	240006	Si NPN TRANSISTOR	NATIONAL	2N3904 / TO92	2
Q6	230031	N-CHAN DUAL J FET	SILICONIX	U 404	1
Q7	NOT USED				-
Q8	NOT USED				-
Q9	230001	N-CHAN I LIM 1·4mA	TELEDYNE	J 506	-
Q10	NOT USED				-
Q11	240006	Si NPN TRANSISTOR	NATIONAL	2N3904 / TO92	-

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 12 9 84
DRAWN
CHECKED 30.10
APPROVED
DATE

datron ELECTRONICS LTD
TITLE '4200'
I PCB ASSEMBLY.
DRAWING NUMBER 400555
SHEET 8 OF 13

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
M1	260069	411 OP AMP	NATIONAL	LF411CH	2
M2	NOT USED				–
M3	260053	7650 OP AMP	INTERSIL	ICL7650CPD	1
M4	260065	OP27 OP AMP	PMI	OP27FZ	2
M5		NOT USED			–
M6	280035	BCD/DECIMAL DECODER	MOTOROLA	MC14028BCP	1
M7	260069	411 OP AMP	NATIONAL	LF411CH	–
M8	260065	OP27 OP AMP	PMI	OP27FZ	–
M9	280045	TRIPLE 3 I/P NOR	MOTOROLA	MC14023UBCP	1
M10		NOT USED			–
M11		NOT USED			–
M12	290050	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2002A / XR2202CP	2
M13		NOT USED			–
M14	290050	7x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2002A / XR2202CP	–
M15	260039	324 QUAD OP AMP	NATIONAL	LM324N	1
M16	280023	QUAD 2 I/P NOR	MOTOROLA	MC14001UBCP	1
M17	280017	HEX INVERTER	MOTOROLA	MC14069UBCP	1
M18		NOT USED			–
M19		NOT USED			–
M20		NOT USED			–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

YSS														
ECO														
DATE														
CHKD														

DATE 12 9 84

DRAWN

CHECKED 30.10

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 I PCB ASSEMBLY

DRAWING NUMBER 400555

SHEET 9 OF 13

SIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
RL1	330028	RELAY 4 POLE LATCHING	NATIONAL	S3-L2-24V	1
RL2	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	4
RL3	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	–
RL4	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	–
RL5	330012-2	RELAY REED 1A GUARDED	HAMLIN	HE721A5134	–
RL7	NOT USED				–
RL6	NOT USED				–
RL8	330029	RELAY 2P2W	SDS	DS2E - DC24V	2
RL9	330029	RELAY 2P2W	SDS	DS2E - DC24V	–
RL10 TO RL22	NOT USED				–
RL23	330030	RELAY 4P N/O	SDS	S4-24V	1
RL24	NOT USED				–
RL25	NOT USED				–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

YSS														
ECO														
DATE														
CHKD														

DATE 12 9 84

DRAWN

CHECKED 30.10

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 I PCB ASSEMBLY

DRAWING NUMBER 400555

SHEET 10 OF 13

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
L1	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	2
L2	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	-
	410321-1	I/Ω PRINTED CIRCUIT	BOARD		1
	450419-2	CURRENT HEATSINK			1
	512000	7/0·2 PTFE WIRE BLACK			A/R
	512222	7/0·2 PTFE WIRE RED			A/R
	512333	7/0·2 PTFE WIRE ORANGE			A/R
	512444	7/0·2 PTFE WIRE YELLOW			A/R
	512555	7/0·2 PTFE WIRE GREEN			A/R
	512666	7/0·2 PTFE WIRE BLUE			A/R
	512888	7/0·2 PTFE WIRE GREY			A/R
	540002	22SWG TINNED COPPER WIRE.			A/R
	512999	7/0·2 WHITE PTFE INSULATED WIRE			A/R
	540006	1/0·4 BLK. PTFE INS: WIRE		TO BS0210 TYPE A	A/R
	590001	SLEEVE MAX. CABLE ⌀ 3·0	HELLERMANN ELECTRIC	H15 x 20mm BLK. HELSYN	10
	590004	SLEEVE - PTFE	HELLERMANN ELECTRIC	FE 10	A/R
	590007	LACING CORD			A/R

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 12 9 84
DRAWN
CHECKED 30.10
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200
I PCB ASSEMBLY

DRAWING NUMBER 400555 SHEET 11 OF 13

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	604033	4WAY ·1" PCB PLUG GD. PL.	MOLEX	22-29-2041	2
	605052	8 WAY ·1" HOUSING	MOLEX	22-01-2085	1
	605059	8 WAY DIL SOCKET			2
	605060	14 WAY DIL SOCKET			5
	605061	16 WAY DIL SOCKET			3
	605057	CRIMP TERMINAL GD. PL.	MOLEX	4809-GL.	8
	611004	M3 X 6mm POZI-PAN STEEL. ZN. PL.			3
	611015	M3 X 8mm POZI-C.S.K STEEL. ZN. PL.			2
	611008	M3 X 10mm POZI-CSK STEEL ZN. PL.			2
	613005	M3 INT SHAKEPROOF			2
	613029	M3 WAVEY WASHER SS			5
	615002	M3 FULL NUT STEEL ZN. PL.			4
*	618001	INSULATING BUSH TO 220.	MULLARD	5G359C	2
	620001	CLOVERLEAF PTFE INSUL.	SEALECTRO	FTE12P59	2
	620003	SOLDER PIN	HARWIN	H 2105 A01	4
	620005	CLOVERLEAF PTFE INSUL.	SEALECTRO	FTE 15P59	9
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	1

NOTES. * INSULATING BUSH REQUIRED ONLY WHEN VISHAY RESISTOR ALTERNATIVE USED. (R 19)

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 12 9 84
DRAWN
CHECKED 30.10
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200
I PCB ASSEMBLY

DRAWING NUMBER 400555 SHEET 12 OF 13

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	630003	'P' CLIP ϕ 4·8 mm	SES	CN5	2
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	N°2	18
	630036	STEATITE BEAD 18 SWG	PARK ROYAL PORCELAIN	N°1	8
	630122	PCB EJECTOR BLUE	RICHCO	CBE	2
	900003	HEAT SINK COMPOUND	RS	554-311	A/R
F1	NOT USED				
F2	NOT USED				
F3	NOT USED				
F4	NOT USED				
F5	920125	FUSE 2½A 125V 7mm	LITTLE FUSE	275 02·5	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 12 9 84

DRAWN

CHECKED 30.10

APPROVED

DATE

datron ELECTRONICS LTD

TITLE '4200' I PCB ASSEMBLY

DRAWING NUMBER 400555

SHEET 13 OF 13

| DRAWING No. | CHK'D | | |

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
R24	000682	6k8 5% 1/3W CARBON	MULLARD	CR25	–
R25	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R26	013921	3k92 1% 1/8W 50ppm MF	HOLCO	H8C	1
R27	013321	3k32 1% 1/8W 50ppm MF	HOLCO	H8C	2
R28	012672	26k7 1% 1/8W 50ppm MF	HOLCO	H8C	1
R29	016811	6k81 1% 1/8W 50ppm MF	HOLCO	H8C	6
R30	000272	2k7 5% 1/3W CARBON	MULLARD	CR25	1
R31	000821	820R 5% 1/3W CARBON	MULLARD	CR25	1
R32	019092	90k9 1% 1/8W 50ppm MF	HOLCO	H8C	1
R33		NOT USED			–
R34	007100	10R 2% 2W MET-OX	ELECTROSIL	FP2	–
R35	015620	562R 1% 1/8W 50ppm MF	HOLCO	H8C	–
R36	007393	39k 2% 2W MET-OX	ELECTROSIL	FP2	–
R37	012430	243R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R38	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R39	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R40	000473	47k 5% 1/3W CARBON	MULLARD	CR25	8
R41	000473	47k 5% 1/3W CARBON	MULLARD	CR25	–
R42	016811	6k81 1% 1/3W CARBON	MULLARD	CR25	–
R43	016811	6k81 1% 1/3W CARBON	MULLARD	CR25	–
R44	000101	100R 5% 1/3W CARBON	MULLARD	CR25	4
R45	000101	100R 5% 1/3W CARBON	MULLARD	CR25	–
R46	018252	82k5 1% 1/8W 50ppm MF	HOLCO	H8C	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 25.5.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB ASSY

DRAWING NUMBER 400450 | SHEET 3 OF 23

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
R47	016811	6k81 1% 1/8W 50ppm MF	HOLCO	H8C	–
R48	013321	3k32 1% 1/8W 50ppm MF	HOLCO	H8C	–
R49	008051	43k 5% 9W W.W.	WELWYN	W23	1
R50	000824	820k 5% 1/3W CARBON	MULLARD	CR25	2
R51	002204	200k 5% 1W CARBON	ALLEN BRADLEY	GB5	1
R52	011000	100R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R53	016198	61R9 1% 1/8W 50ppm MF	HOLCO	H8C	1
R54	000331	330R 5% 1/3W CARBON	MULLARD	CR25	1
R55	000102	1k 5% 1/3W CARBON	MULLARD	CR25	–
R56	012000	200R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R57	000470	47R 5% 1/3W CARBON	MULLARD	CR25	3
R58	015620	562R 1% 1/8W 50ppm MF	HOLCO	H8C	–
R59	000104	100k 5% 1/3W CARBON	MULLARD	CR25	–
R60	000473	47k 5% 1/3W CARBON	MULLARD	CR25	–
R61	000824	820k 5% 1/3W CARBON	MULLARD	CR25	–
R62		NOT USED			–
R63	011002	10k0 1% 1/8W 50ppm MF	HOLCO	H8C	5
R64	011002	10k0 1% 1/8W 50ppm MF	HOLCO	H8C	–
R65	008058	22k 5% 12W W.W.	WELWYN	W24	1
R66	015111	5k11 1% 1/8W 50ppm MF	HOLCO	H8C	–
R67	011002	10k0 1% 1/8W 50ppm MF	HOLCO	H8C	–
R68	011002	10k0 1% 1/8W 50ppm MF	HOLCO	H8C	–
R69	000223	22k 5% 1/3W CARBON	MULLARD	CR25	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 25.5.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB ASSY

DRAWING NUMBER 400450 | SHEET 4 OF 23

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
R70	000104	100k 5% 1/3W CARBON	MULLARD	CR25	–
R71	011001	1k0 1% 1/8W 50ppm MF	HOLCO	H8C	3
R72	015110	511R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R73	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R74	011001	1k0 1% 1/8W 50ppm MF	HOLCO	H8C	–
R75	000473	47k 5% 1/3W CARBON	MULLARD	CR25	–
R76	000473	47k 5% 1/3W CARBON	MULLARD	CR25	–
R77		NOT USED			–
R78		NOT USED			–
R79		NOT USED			–
R80		NOT USED			–
R81		NOT USED			–
R82		NOT USED			–
R83		NOT USED			–
R84		NOT USED			–
R85		NOT USED			
R86	000226	22M 5% 1/3W CARBON	MULLARD	CR25	2
R87	000226	22M 5% 1/3W CARBON	MULLARD	CR25	–
R88	005204	200k 2% 1/2W CARBON	ELECTROSIL	TR5	1
R89	000100	10R 5% 1/3W CARBON	MULLARD	CR25	3
R90	000102	1k 5% 1/3W CARBON	MULLARD	CR25	–
R91	000104	100k 5% 1/3W CARBON	MULLARD	CR25	–
R92	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
E.C.O.														
DATE														
CHKD														

DATE 25.5.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB. ASSY.

DRAWING NUMBER 400450 SHEET 5 OF 23

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
R93	016190	619R 1% 1/8W 50ppm MF	HOLCO	H8C	3
R94	013320	332R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R95	012800	280R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R96	019090	909R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R97	012211	2k21 1% 1/8W 50ppm MF	HOLCO	H8C	1
R98	014421	4k42 1% 1/8W 50ppm MF	HOLCO	H8C	1
R99	000104	100k 5% 1/3W CARBON	MULLARD	CR25	–
R100	000105	1M 5% 1/3W CARBON	MULLARD	CR25	1
R101	000474	470k 5% 1/3W CARBON	MULLARD	CR25	1
R102	000104	100k 5% 1/3W CARBON	MULLARD	CR25	–
R103	000104	100k 5% 1/3W CARBON	MULLARD	CR25	–
R104	000102	1k 5% 1/3W CARBON	MULLARD	CR25	–
R105	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R106	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R107	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R108	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	–
R109	000104	100k 5% 1/3W CARBON	MULLARD	CR25	–
R110	000393	39k 5% 1/3W CARBON	MULLARD	CR25	1
R111	000472	4k7 5% 1/3W CARBON	MULLARD	CR25	–
R112	000104	100k 5% 1/3W CARBON	MULLARD	CR25	–
R113	000103	10k 5% 1/3W CARBON	MULLARD	CR25	–
R114	001278	2R7 5% 1/2W CARBON	MULLARD	CR37	1
R115	011302	13k0 1% 1/8W 50ppm MF	HOLCO	H8C	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
E.C.O.														
DATE														
CHKD														

DATE 25.5.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB. ASSY.

DRAWING NUMBER 400450 SHEET 6 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R116	011101	1k1 1% 1/8W 50ppm MF	HOLCO	H8C	—
R117	011302	13k 1% 1/8W 50ppm MF	HOLCO	H8C	—
R118	011101	1k1 1% 1/8W 50ppm MF	HOLCO	H8C	—
R119	000332	3k3 5% 1/3W CARBON	MULLARD	CR25	2
R120	000153	15k 5% 1/3W CARBON	MULLARD	CR25	1
R121	000104	100k 5% 1/3W CARBON	MULLARD	CR25	—
R122	011002	10k0 1% 1/8W 50ppm MF	HOLCO	H8C	—
R123	011001	1k0 1% 1/8W 50ppm MF	HOLCO	H8C	—
R124	015110	511R 1% 1/8W 50ppm MF	HOLCO	H8C	—
R125	016190	619R 1% 1/8W 50ppm MF	HOLCO	H8C	—
R126	016190	619R 1% 1/8W 50ppm MF	HOLCO	H8C	—
R127	000104	100k 5% 1/3W CARBON	MULLARD	CR25	—
R128	000104	100k 5% 1/3W CARBON	MULLARD	CR25	—
R129	000102	1k 5% 1/3W CARBON	MULLARD	CR25	—
R130	000270	27R 5% 1/3W CARBON	MULLARD	CR25	2
R131	000220	22R 5% 1/3W CARBON	MULLARD	CR25	2
R132	000470	47R 5% 1/3W CARBON	MULLARD	CR25	—
R133	000271	270R 5% 1/3W CARBON	MULLARD	CR25	2
R134	000271	270R 5% 1/3W CARBON	MULLARD	CR25	—
R135	000470	47R 5% 1/3W CARBON	MULLARD	CR25	—
R136	000220	22R 5% 1/3W CARBON	MULLARD	CR25	—
R137	000270	27R 5% 1/3W CARBON	MULLARD	CR25	—
R138	007184	180k 2% 2W MET-OX	ELECTROSIL	FP2	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

DATE	25. 5. 84	datron ELECTRONICS LTD	
DRAWN	IL.	TITLE	4200 P.A. PCB ASSY
CHECKED		DRAWING NUMBER	400450
APPROVED		SHEET OF	7 of 23
DATE			

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
R139	000308	3R0 5% 1/3W CARBON	MULLARD	CR25	2
R140	000221	220R 5% 1/3W CARBON	MULLARD	CR25	2
R141	000108	1R 5% 1/3W CARBON	MULLARD	CR25	2
R142	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R143	000100	10R 5% 1/3W CARBON	MULLARD	CR25	—
R144	000338	3R3 5% 1/3W CARBON	MULLARD	CR25	1
R145	000100	10R 5% 1/3W CARBON	MULLARD	CR25	—
R146	000101	100R 5% 1/3W CARBON	MULLARD	CR25	—
R147	000108	1R 5% 1/3W CARBON	MULLARD	CR25	—
R148	000221	220R 5% 1/3W CARBON	MULLARD	CR25	—
R149	000308	3R0 5% 1/3W CARBON	MULLARD	CR25	—
R150	001182	1k8 5% 1/2W CARBON	MULLARD	CR37	1
R151	008005	1R 5% 2½W W.W.	WELWYN	W21	1
R152	000183	18k 5% 1/3W CARBON	MULLARD	CR25	2
R153	000561	560R 5% 1/3W CARBON	MULLARD	CR25	1
R154	000183	18k 5% 1/3W CARBON	MULLARD	CR25	—
R155	007184	180k 2% 2W MET-OX	ELECTROSIL	FP2	—
R156	018250	825R 1% 1/8W 50ppm MF	HOLCO	H8C	1
R157	016811	6k81 1% 1/8W 50ppm MF	HOLCO	H8C	—
R158	000104	100k 5% 1/3W CARBON	MULLARD	CR25	—
R159	012001	2k0 1% 1/8W 50ppm MF	HOLCO	H8C	1
R160	000332	3k3 5% 1/3W CARBON	MULLARD	CR25	—
R161	016811	6k81 1% 1/8W 50ppm MF	HOLCO	H8C	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

DATE	25. 5. 84	datron ELECTRONICS LTD	
DRAWN	IL.	TITLE	4200 P.A. PCB. ASSY.
CHECKED		DRAWING NUMBER	400450
APPROVED		SHEET OF	8 of 23
DATE			

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
RIG2	000102	1k 5% 1/3W CARBON	MULLARD	CR25	—
RIG3	000473	47k 5% 1/3W CARBON	MULLARD	CR25	—
RIG4	000473	47k 5% 1/3W CARBON	MULLARD	CR25	—
RIG5	017500	750R 1% 1/8W 50ppm MF	HOLCO	HBC	1
RIG6		NOT USED			—
RIG7	000473	47k 5% 1/3W CARBON	MULLARD	CR25	—
RIG8	000182	1K8 5% 1/3W CARBON	MULLARD	CR25	1
RIG9	000102	1k 5% 1/3 W CARBON	MULLARD	CR25	—
RI70	000103	10k 5% 1/3 W CARBON	MULLARD	CR25	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS				
E.C.O.				
DATE				
CHKD				

DATE 25. 5. 84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB. ASSY.

DRAWING NUMBER 400450

SHEET 9 OF 23

W 1164

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
AN1	090132	4k7 x4 2% SIL NETWORK	BECKMAN	L08-3-R4k7	1
AN2	090105	100R x4 2% SIL NETWORK	BECKMAN	L08-3-R100	1
AN3	090133	6k8 x4 2% SIL NETWORK	BECKMAN	L08-3-R6k8	1
AN4	090096	1M x8 2% NETWORK	BECKMAN	L09-1-R1M	2
AN5	090096	1M x8 2% NETWORK	BECKMAN	L09-1-R1M	—
AN6	090085	12k x8 2% NETWORK	AB	761-3-12k	2
AN7	090085	12k x8 2% NETWORK	AB	761-3-12k	—
AN8	090090	47k x8 2% NETWORK	AB	761-3-47k	1
AN9	090144	1k x 8 1% DIL NETWORK	BECKMAN	698-3-R1kF	1

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS				
E.C.O.				
DATE				
CHKD				

DATE 25. 5. 84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB. ASSY.

DRAWING NUMBER 400450

SHEET 10 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
C1	150023	33µF 20% 25V DIP TANT	UNION CARBIDE	K33E25	1
C2	104018	1nF 20% 1kV CER DISC	ITT	HDIOK101NOMS-SSIKODSC	2
C3	150006	4µ7F 20% 16V DIP TANT	UNION CARBIDE	K4R7E16	1
C4	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	7
C5		NOT USED			–
C6		NOT USED			–
C7	104018	1nF 20% 1kV CER DISC	ITT	HDIOK101NOMS-SSIKODSC	–
C8	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	12
C9	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C10	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	4
C11	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	–
C12	104021	15pF 20% 1kV NPO CD	ITT	HDIOC615POMS-SSIKODSC	1
C13	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C14	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C15	110035	220nF 20% 63V POLYESTER	WIMA	MKS2	2
C16	102471	470pF 10% 500V CER DISC	ITT	CD10	2
C17	102222	2n2F 10% 500V CER DISC	ITT	CD10	1
C18	102100	10pF 5% 500V CER DISC	ITT	CD10	2
C19	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C20	110015	15nF 20% 63V POLYESTER	WIMA	MKS2	3
C21	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C22	110044	680nF 20% 630V POLYESTER	WIMA	MKS4	2
C23	102221	220pF 10% 500V CER DISC	ITT	CD10	3

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS														
E C O														
DATE														
CHKD														

DATE 25.5.84

DRAWN J.

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB. ASSY.

DRAWING NUMBER 400450

SHEET 11 OF 23

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
C24	102221	220pF 10% 500V CER DISC	ITT	CD10	–
C25	110041	10nF 20% 100V POLYESTER	WIMA	FKS2	1
C26	180041	100µF 40V AL ELECT	STEATITE	EKM 00FD 310G	1
C27	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C28	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C29		NOT FITTED			–
C30	102471	470pF 10% 500V CER DISC	ITT	CD10	–
C31	110044	680nF 20% 630V POLYESTER	WIMA	MKS4	–
C32	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C33	100182	1n8F 2% 100V CER DISC	MULLARD	2222 683	1
C34	110015	15nF 20% 63V POLYESTER	WIMA	MKS2	–
C35	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	–
C36	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E25	–
C37	150020	10µF 20% 25V DIP TANT	UNION CARBIDE	K10E35	–
C38	110035	220nF 20% 63V POLYESTER	WIMA	MKS2	–
C39	150022	2µ2F 20% 35V DIP TANT	UNION CARBIDE	K2R2E35	4
C40	102338	3p3F ±·5pF 500V CER DISC	ITT	CD08	1
C41	150022	2µ2F 20% 35V DIP TANT	UNION CARBIDE	K2R2E35	–
C42	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C43	104026	47nF +50 -20% 50V CER DISC	SIEMENS	B37449	–
C44	110015	15nF 20% 63V POLYESTER	WIMA	MKS2	–
C45	101103	10nF 25% 250V CER DISC	ITT	CD10	5
C46	101103	10nF 25% 250V CER DISC	ITT	CD10	–

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS														
E C O														
DATE														
CHKD														

DATE 25.5.84

DRAWN J.

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 PA. PCB. ASSY.

DRAWING NUMBER 400450

SHEET 12 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy.
C47	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	–
C48	102221	220pF 10% 500V CERDISC	ITT	CD10	–
C49	180051	22µF 20% 350V AL. ELECT	ECC	SMVB	2
C50	100101	100pF 2% 100V CER DISC	MULLARD	2222 683	2
C51	180045	47µF 63V AL. ELECT.	MULLARD	031–38479	2
C52	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	–
C53	100338	3p3F ± ·25pF 100V CER DISC	MULLARD	2222 683	1
C54	180045	47µF 63V AL. ELECT.	MULLARD	031–38479	–
C55	100478	4p7F ± ·25pF 100V CER DISC	MULLARD	2222 683	1
C56	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	–
C57	100101	100pF 2% 100V CER DISC	MULLARD	2222-683	–
C58	100332	3n3F 2% 100V CER DISC	MULLARD	2222-63019	1
C59	180051	22µF 20% 350V AL. ELECT	ECC	SMVB	–
C60	104026	47nF +50% -20% 50V CER DISC	SIEMENS	B37449	–
C61	150022	2µ2F 20% 35V DIP TANT	UNION CARBIDE	K2R2E35	–
C62	150022	2µ2F 20% 35V DIP TANT	UNION CARBIDE	K2R2E35	–
C63	101103	10nF 25% 250V CER DISC	ITT	CD10	–
C64	101103	10nF 25% 250V CER DISC	ITT	CD10	–
C65	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	–
C66		NOT USED			–
C67	100102	1nF 2% 100V CER DISC	MULLARD	2222 63019	1
C68	110026	6n8F 20% 100V POLYESTER	WIMA	FKS2	1
C69	150019	220nF 20% 35V DIP TANT	UNION CARBIDE	KR22E35	1

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 25.5.84 | datron ELECTRONICS LTD

DRAWN IL. | TITLE 4200 P.A. PCB. ASSY

CHECKED | APPROVED | DATE

DRAWING NUMBER 400450 | SHEET 13 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C70	150012	100nF 20% 35V DIP TANT	UNION CARBIDE	KR10E35	1
C71	101103	10nF 25% 250V CER DISC	ITT	CD10	–
C72	102100	10pF 5% 500v CER DISC	ITT	CD10	–
C73	102102	1nF 10% 500v CER DISC	ITT	CD10	1
C74	110042	100nF 20% 63v POLYESTER	WIMA	MKS2	–
C75	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	KIR0E35	4
C76	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	KIR0E35	–
C77	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	KIR0E35	–
C78	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	KIR0E35	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 25.5.84 | datron ELECTRONICS LTD

DRAWN IL. | TITLE 4200 P.A. PCB. ASSY

CHECKED | APPROVED | DATE

DRAWING NUMBER 400450 | SHEET 14 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
D1	210100	10V 400mW ZENER	MULLARD	BZY88C10	7
D2	210047	4V7 400mW ZENER	MULLARD	BZY88C4V7	1
D3	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	28
D4	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	8
D5	214012	2V45 30ppm ZENER	FERRANTI	ZN458	1
D6	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D7	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D8	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D9	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D10	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D11	220008	L.E.D. RED	PYE-TMC	521-9165	2
D12	210100	10V 400mW ZENER	MULLARD	BZY88C10	–
D13	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D14	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D15	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D16	213012	2V0 250mW ZENER	MULLARD	BZV46-2V0	1
D17	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D18	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D19	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	–
D20	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D21	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D22	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D23	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

YIS														
E C O														
DATE														
CHKD														

DATE 25.5.84 | DRAWN IL | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB. ASSY

DRAWING NUMBER 400450 | SHEET 15 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
D24	210150	15V 400mW ZENER	MULLARD	BZY88C15	1
D25		NOT USED			
D26		NOT USED			
D27	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	–
D28	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D29	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D30	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D31	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D32	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	–
D33	213009	15V 5W ZENER	UNITRODE	TVS515	2
D34	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D35	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D36	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D37		NOT USED			
D38	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D39	210100	10V 400mW ZENER	MULLARD	BZY88C10	–
D40	210100	10V 400mW ZENER	MULLARD	BZY88C10	–
D41	211150	15V 1·3W ZENER	MULLARD	BZX61C15	1
D42	210100	10V 400mW ZENER	MULLARD	BZY88C10	–
D43	210100	10V 400mW ZENER	MULLARD	BZY88C10	–
D44	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D45	213009	15V 5W ZENER	UNITRODE	TVS515	–
D46	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	12

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

YIS														
E C O														
DATE														
CHKD														

DATE 25.5.84 | DRAWN IL | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB. ASSY.

DRAWING NUMBER 400450 | SHEET 16 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
D47	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D48	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D49	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D50		NOT USED			
D51	210300	30V 400mW ZENER	MULLARD	BZY88C30	1
D52		NOT USED			
D53		NOT USED			
D54	210100	10V 400mW ZENER	MULLARD	BZY88C10	–
D55	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	–
D56	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	–
D57	213005	75V ½W ZENER	MOTOROLA	BZX79C75	1
D58	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D59	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D60	213019	200V 5% ½W ZENER	MULLARD	BZX79C200	2
D61	213019	200V 5% ½W ZENER	MULLARD	BZX79C200	–
D62	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D63	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D64	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D65	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D66	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D67	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D68	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–
D69	200008	200mA 125V LL Si DIODE	FAIRCHILD	IN458A	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

DATE	25.5.84	datron ELECTRONICS LTD	
DRAWN	IL.	TITLE	4200 P.A. PCB. ASSY.
CHECKED			
APPROVED			
DATE		DRAWING NUMBER	400450
		SHEET	17 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
D70	220008	L.E.D. RED	PYE-TMC	521-9165	–
D71	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D72	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	–
D73	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	–
D74	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
Q1	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	4
Q2	230063	N-CHAN TMOS JFET	MOTOROLA	MTP2N85	2
Q3	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	6
Q4	230064	P-CHAN TMOS JFET	MOTOROLA	MTP2P50	2
Q5	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	–
Q6	230036	N-CHAN JFET	SILICONIX	J108	4
Q7	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	–
Q8	230064	P-CHAN TMOS JFET	MOTOROLA	MTP2P50	–
Q9	230073	N-CHAN TMOS JFET	MOTOROLA	MTP1N100	1
Q10	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	–
Q11	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	–
Q12	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	–
Q13	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	–

NOTES

SEE SHEET 2 FOR LATEST ISSUE

DATE	25.5.84	datron ELECTRONICS LTD	
DRAWN	IL.	TITLE	4200 P.A. PCB. ASSY
CHECKED			
APPROVED			
DATE		DRAWING NUMBER	400450
		SHEET	18 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
Q14	230036	N-CHAN JFET	SILICONIX	J108	—
Q15		NOT USED			—
Q16		NOT USED			
Q17	250001	Si PNP TRANSISTOR	NATIONAL	BC214 / TO18	—
Q18	230036	N-CHAN JFET	SILICONIX	J108	—
Q19	230003	N-CHAN JFET	TELEDYNE	U1899JF	4
Q20	230063	N-CHAN TMOS JFET	MOTOROLA	MTP2N85	—
Q21	230001	N-CHAN I LIM 1·4mA	SILICONIX	J506	2
Q22	240006	Si NPN TRANSISTOR	NATIONAL	2N3904 / TO18	2
Q23	250004	Si PNP TRANSISTOR	NATIONAL	2N3906 / TO18	1
Q24	230001	N-CHAN I LIM 1·4mA	SILICONIX	J506	—
Q25	230003	N-CHAN JFET	TELEDYNE	U1899JF	—
Q26	230003	N-CHAN JFET	TELEDYNE	U1899JF	—
Q27	250009	Si PNP TRANSISTOR	NATIONAL	2N5401 / TO18	3
Q28	250009	Si PNP TRANSISTOR	NATIONAL	2N5401 / TO18	—
Q29	240009	Si NPN TRANSISTOR	NATIONAL	MPSL01 / 2N5550 TO18	2
Q30	240006	Si NPN TRANSISTOR	NATIONAL	2N3904 / TO18	—
Q31	250009	Si PNP TRANSISTOR	NATIONAL	2N5401 / TO18	—
Q32	240030	Si NPN TRANSISTOR	MOTOROLA	BD389	1
Q33	250019	Si PNP TRANSISTOR	MOTOROLA	BD390	1
Q34	240009	Si NPN TRANSISTOR	NATIONAL	MPSL01/2N5550 TO18	—
Q35	230003	N-CHAN JFET	TELEDYNE	U1899JF	—
Q36	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 25.5.84 | DRAWN IL. | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB. ASSY.

DRAWING NUMBER 400450 | SHEET 19 OF 23

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
Q37	230036	N-CHAN JFET	SILICONIX	J108	—
M1	290077	7 x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2004A / XR2204CP	1
M2	260049	319 DUAL COMPARATOR	NATIONAL	LM319N	1
M3	260039	324 QUAD OP AMP	NATIONAL	LM324N	1
M4	260043	358 DUAL OP AMP	NATIONAL	LM358N	1
M5	280011	DUAL D FLIP-FLOP	MOTOROLA	MC14013BCP	1
M6	280008	QUAD 2 I/P NAND	MOTOROLA	MC14011BCP	1
M7	280090	DUAL BINARY DECODER	MOTOROLA	MC14555BCP	1
M8	260074	LH0032C FAST FET OP AMP	NATIONAL	LH0032CG	1
M9	280045	TRIPLE 3 I/P NOR	MOTOROLA	MC14025BCP	1
M10	260027	714 OP AMP	FAIRCHILD	µA714HC	2
M11	280009	HEX INVERTER	MOTOROLA	MC14049UBCP	1
M12	280023	QUAD 2 I/P NOR	MOTOROLA	MC14001UBCP	1
M13	290089	7 x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2003A/XR2203CP	1
M14		NOT USED			—
M15	260046	2525 OP AMP	HARRIS	HA32525·5	2
M16	220018	Hi-SPEED OPTO ISOLATOR	HP	6N136	1
M17	260027	714 OP AMP	FAIRCHILD	µA714HC	—
M18	260042	5532 DUAL OP AMP	SIGNETICS	NE5532N	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 25.5.84 | DRAWN IL. | CHECKED | APPROVED | DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB. ASSY

DRAWING NUMBER 400450 | SHEET 20 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
M19	260046	2525 OP AMP	HARRIS	HA 32525-5	–
M20	260028	1458 DUAL OP AMP	FAIRCHILD	μA1458CTC	1
M21	260079	12V 1A REGULATOR	NATIONAL	LM78L12	1
M22	260075	2903 DUAL COMPARATOR	NATIONAL	LM2903N	2
M23	260075	2903 DUAL COMPARATOR	NATIONAL	LM2903N	–
RL1	330029	RELAY 2P 2W	SDS	DS2E-DC24V	7
RL2	330029	RELAY 2P 2W	SDS	DS2E-DC24V	–
RL3	330029	RELAY 2P 2W	SDS	DS2E-DC24V	–
RL4	330029	RELAY 2P 2W	SDS	DS2E-DC24V	–
RL5	330029	RELAY 2P 2W	SDS	DS2E-DC24V	–
RL6	330029	RELAY 2P 2W	SDS	DS2E-DC24V	–
RL7	330029	RELAY 2P 2W	SDS	DS2E-DC24V	–
L1	370025	2μ2H 665mA CHOKE	SIGMA	SC30	2
L2	370025	2μ2H 665mA CHOKE	SIGMA	SC30	–
L3	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	5
L4	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
L5	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
L6	370007-1	40mH CHOKE	SIGA		1
L7	370012	470nH 0·1Ω RF CHOKE	SIGMA	SC10	2
L8	370012	470nH 0·1Ω RF CHOKE	SIGMA	SC10	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS															
ECO															
DATE															
CHKD															

DATE 25.5.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB. ASSY.

DRAWING NUMBER 400450 SHEET 21 OF 23

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
L9	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
L10	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
LP1	920148	NEON 200/250V T1¼ BI-PIN	RS	586-431	2
LP2	920148	NEON 200/250V T1¼ BI-PIN	RS	586-431	–
	410253-5	PCB			1
	540002	22SWG B.T.C. WIRE			A/R
	604046	3-WAY ·1" PCB PLUG GD.PL.	MOLEX	22-10-2031	1
J1-J5	604033	4-WAY ·1" PCB PLUG GD.PL.	MOLEX	22-29-2041	10
	605059/A	8-WAY DIL SOCKET			8
	605060/A	14-WAY DIL SOCKET			6
	605061/A	16-WAY DIL SOCKET			4
	611006	M3x10mm POZI-PAN STEEL	ZN.PL.		2
	611016	M3x8mm POZI-PAN STEEL	ZN.PL		2
	613005	M3 INT. SHAKEPROOF	ZN.PL.		3
	613007	M3 WASHER STEEL	ZN.PL.		1
	615002	M3 FULL NUT STEEL	ZN.PL.		4
	618001	INSULATING BUSH TO-220	MULLARD	56359C	1
	613029	M3 WAVY WASHER			1
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	27

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS															
ECO															
DATE															
CHKD															

DATE 25.5.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB. ASSY.

DRAWING NUMBER 400450 SHEET 22 OF 23

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	Nº 2	52
	630123	PCB EJECTOR - VIOLET	RICHCO	CBE	2
S1	700081	SWITCH 1P 2POS^{M} SLIDE	ALCO	SLS-121-PC	1
	920091-1	HEATSINK TO-220	SEE DRG		1
	920151	HEATSINK TO-202 SLIP CLIP	THERMALLOY	6046 PB	2
	920152	HEATSINK TO-220	AAVID	5425B - TT	1
	920153	HEATSINK TO-220	ASSMAN	V4330	1
	590004	SLEEVING PTFE Ø1·0			A/R
	618004	MOUNTING PAD TO18	JERMYN	TO18-008D	1
	618010	SIL PAD TO-220			1
	605124	10-WAY SOCKET STRIP	AUGAT	510-AG91D	1·33
	920149	HEATSINK TO8	SOURIAU	TXBF 2-050-033B	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 25. 5. 84

DRAWN L.

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 P.A. PCB. ASSY

DRAWING NUMBER 400450

SHEET 23 OF 23

F.W. 1264

DRAWING No. 400561

	CHK'D	DATE	ECO	REVISION	ISSUE
	MD	4-7-85	1958	2·0	2·1
	MD	14-10-85	2034	2·1	

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION	
COMP LAYOUT.	480561	1	2·0	2·1
SCHEMATIC	430561	1	2·0	
FUNCTIONAL TEST PROC.	460561/FT	1-3	2·0	
FUNCT. TEST TICK LIST	470561/FT	1	2·0	

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APP'D	TITLE	DRAWING No.
B. JACKSON	MD		4200 OUT GUARD PSU ASSY	400561
DATE 4-7-85	DATE 10.7.85	DATE 23.7.85		SHEET 1 OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R1	008024	0R27 10% 2½W WIREWOUND	WELWYN	W21	1
R2	000330	33R 5% 1/3W CARBON	MULLARD	CR25	1
R3	000102	1k 5% 1/3W CARBON	MULLARD	CR25	3
R4	000182	1k8 5% 1/3W CARBON	MULLARD	CR25	1
R5	013922	39k2 1% 1/8W 50ppm MF	HOLCO	H8C	1
R6	013742	37k4 1% 1/8W 50ppm MF	HOLCO	H8C	1
R7	090001	PTC THERMISTOR	MULLARD	VA8650	1
R8	000470	47R 5% 1/3W CARBON	MULLARD	CR25	2
R9	000470	47R 5% 1/3W CARBON	MULLARD	CR25	–
R10	011003	100k 1% 1/8W 50ppm MF	HOLCO	H8C	2
R11	011003	100k 1% 1/8W 50ppm MF	HOLCO	H8C	–
R12	066205	2M POT 3/8 SQ VERT.CERMET	BECKMAN	72XW	1
R13	001184	180k 5% ½W CARBON	MULLARD	CR37	1
R14	000102	1k 5% 1/3W CARBON	MULLARD	CR25	–
R15	000102	1k 5% 1/3W CARBON	MULLARD	CR25	–
R16	000221	220R 5% 1/3W CARBON	MULLARD	CR25	2
R17	008022	0R27 10% ½W MF	ITT	RN05	2
R18	008022	0R27 10% ½W MF	ITT	RN05	–
R19	000104	100k 5% 1/3W CARBON	MULLARD	CR25	1
R20	000221	220R 5% 1/3W CARBON	MULLARD	CR25	–

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1
ECO	—
DATE	3.1.84
CHK'D	MD

DATE 29.2.84
DRAWN IL
CHECKED
APPROVED
DATE 6.3.84

datron ELECTRONICS LTD

TITLE 4200 PS (OG) PCB ASSY

DRAWING NUMBER 400561 SHEET 2 OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
C1		NOT USED			–
C2	150006	4µ7F 20% 16V DIP TANT	UNION CARBIDE	K4R7E16	1
C3		NOT USED			–
C4	150017	100µF 20% 16V DIP TANT	UNION CARBIDE	K100E16	1
C5	180004	4700µF 16V AL. ELECT	WIMA	PRINTILYT 1	1
C6	101103	10nF 25% 250V CER DISC	ITT	CD10	1
C7	180026	10µF 350V AL. ELECT	ITT	EN12.12 10/350	1
C8	104030	100pF 10% 4kV CER DISC	ITT	HD16	1
C9	102222	2n2F 20% 500V CER DISC	ITT	CD10	1
C10	110005	10nF 20% 250V POLYESTER	MULLARD	C280AEP10k	1
D1	200022	3A 400V GP Si DIODE	MOTOROLA	BY252	2
D2	200022	3A 400V GP Si DIODE	MOTOROLA	BY252	–
D3	210027	2V7 400mW ZENER	MULLARD	BZY88C2V7	1
D4	214012	2V45 30ppm ZENER	FERRANTI	ZN458	1
D5	213006	5V 5W ZENER	UNITRODE	TVS505	1
D6	210068	6V8 400mW ZENER	MULLARD	BZY88C6V8	1
D7	213004	180V ½W ZENER	MOTOROLA	IN5279B	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 29.2.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 PS(0G) PCB ASSY

DRAWING NUMBER 400561 SHEET 3 OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
W1	209013	1A5 600V BRIDGE RECT	MICRO-ELECTRONICS	W006	1
Q1	250011	Si PNP TRANSISTOR	NATIONAL	BC327/T018	1
Q2	240024	Si NPN TRANSISTOR	NATIONAL	TIP31A	1
Q3	240018	Si NPN TRANSISTOR	MOTOROLA	MJE340	2
Q4	240018	Si NPN TRANSISTOR	MOTOROLA	MJE340	–
Q5	250016	Si PNP TRANSISTOR	MOTOROLA	MJ2955	2
Q6	250016	Si PNP TRANSISTOR	MOTOROLA	MJ2955	–
M1	260061	3140 OP AMP	RCA	CA3140E	1
	410179-6	PCB			1
	604042	4 WAY WAFER PIN .156"	MOLEX	09-72-2041	2
	605059/A	8 WAY DIL SOCKET			1
	611006	M3x10mm POZIPAN STEEL	ZN PL		6
	611004	M3x6mm POZIPAN STEEL	ZN PL		1
	613005	M3 INT. SHAKEPROOF	ZN PL		7
	613007	M3 WASHER STEEL	ZN PL		6
	615002	M3 FULL NUT STEEL	ZN PL		7
	618004	MOUNTING PAD T018	JERMYN	T018-008D	1
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	9
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	Nº 2 (LARGE)	6
	900003	HEATSINK COMPOUND	RS	554-311	A/R
	900004	SILICONE RUBBER COMPOUND	RS	555-588	A/R

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 29.2.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 PS (0G) PCB ASSY

DRAWING NUMBER 400561 SHEET 4 OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	920088-1	HEATSINK TO-3	SEE DRG		2
	920126	FUSE HOLDER 20mm PCB	BELLING LEE	L1426	1
F1	920128	FUSE 4A 250V 20mm SLO-B	BELLING LEE	L2080A/4	1
	920144	HEATSINK TO-220	REDPOINT	TV1500	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 29.2.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 PS OG PCB ASSY

DRAWING NUMBER 400561

SHEET 5 OF 5

DRAWING No. 400554	CHK'D	MSD	MSD	MSD
	DATE	4-7-85	18.9.85	5.2.86
	ECO	1938	1981	2139
	REVISION	4·0	4·1	4·2
	ISSUE			

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION	
COMP. LAYOUT.	480554	1	4·0	4·1
SCHEMATIC	430554	1	4·0	4·1
SCHEMATIC	430554	2	4·0	
FUNCTIONAL TEST. PROC.	460554/FT	1-2	4·0	
FUNCT. TEST TICK LIST.	470554/FT	1	4·0	

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD	TITLE	DRAWING No.
B. JACKSON	MSD	JST	4200	400554
DATE 4-7-85	DATE 10.7.85	DATE 23.7.85	PS(IG) PCB ASSY	SHEET 1 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000102	1k 5% ⅓W CARBON	MULLARD	CR25	1
R2	015230	523R 1% ⅛W 50ppm MF	HOLCO	H8C	1
R3	021402	14k 1% ¼W 50ppm MF	HOLCO	H4C	1
R4		NOT USED			–
R5		NOT USED			–
R6		NOT USED			–
R7	000272	2k7 5% ⅓W CARBON	MULLARD	CR25	2
R8	000272	2k7 5% ⅓W CARBON	MULLARD	CR25	–
R9	000103	10k 5% ⅓W CARBON	MULLARD	CR25	2
R10	000103	10k 5% ⅓W CARBON	MULLARD	CR25	–
C1	180042	3300μF 25V AL ELECT	STEATITE	EG. 00MG. 433E	2
C2	180042	3300μF 25V AL ELECT	STEATITE	EG. 00MG. 433E	–
C3	180047	1000μF 40V AL ELECT	ECC	SMVB	7
C4	180047	1000μF 40V AL ELECT	ECC	SMVB	–
C5	110020	47nF 20% 63V POLYESTER	WIMA	MKS2	1
C6	150021	22μF 20% 25V DIP TANT	UNION CARBIDE	K22E25	7
C7	150021	22μF 20% 25V DIP TANT	UNION CARBIDE	K22E25	–
C8	180047	1000μF 40V AL ELECT	ECC	SMVB	–
C9	180047	1000μF 40V AL ELECT	ECC	SMVB	–
C10	180048	470μF 63V AL ELECT	ECC	SMVB	2

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	2	3	4
ECO	1576	1647	1745
DATE	7.2.84	11.6.84	24-10-84
CHK'D	KP	KP	SJ

DATE 29.2.84	datron ELECTRONICS LTD
DRAWN IL.	TITLE 4200 PS(IG) PCB ASSY
CHECKED KP	
APPROVED SJ	DRAWING NUMBER 400554
DATE 6.3.84	SHEET 2 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C11	150021	22µF 20% 25V DIP TANT	UNION CARBIDE	K22E25	—
C12	104026	47nF $^{50}_{20}$% 50V CER DISC	SIEMENS	B37449	3
C13	150021	22µF 20% 25V DIP TANT	UNION CARBIDE	K22E25	—
C14	180024	10µF 63V AL ELECT	MULLARD	01G-18109	1
C15	150021	22µF 20% 25V DIP TANT	UNION CARBIDE	K22E25	—
C16	150021	22µF 20% 25V DIP TANT	UNION CARBIDE	K22E25	—
C17	104026	47nF $^{50}_{20}$% 50V CER DISC	SIEMENS	B37449	
C18	150001	22µF 20% 16V DIP TANT	UNION CARBIDE	K22E1G	2
C19	150001	22µF 20% 16V DIP TANT	UNION CARBIDE	K22E1G	—
C20	104026	47nF $^{50}_{20}$% 50V CER DISC	SIEMENS	B37449	—
C21	180048	470µF 63V AL ELECT	ECC	SMV8	—
C22	180047	1000µF 40V AL ELECT	ECC	SMV8	—
C23	180047	1000µF 40V AL ELECT	ECC	SMV8	—
C24	180047	1000µF 40V AL ELECT	ECC	SMV8	—
C25	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	K1R0E35	2
C26	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	K1R0E35	—
C27	150021	22µF 20% 25V DIP TANT	UNION CARBIDE	K22E25	—
D1	200022	3A 400V GP Si DIODE	MOTOROLA	BY252	4
D2	200022	3A 400V GP Si DIODE	MOTOROLA	BY252	—
D3	200022	3A 400V GP Si DIODE	MOTOROLA	BY252	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 29.2.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 PS(IG) PCB ASSY

DRAWING NUMBER 400554 SHEET 3 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	FRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D4	200022	3A 400V GP Si DIODE	MOTOROLA	BY252	—
D5	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	4
D6	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	—
D7	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	—
D8	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	—
D9	210200	20V 400mW ZENER	MULLARD	BZY88C20	2
D10	210200	20V 400mW ZENER	MULLARD	BZY88C20	—
D11	210033	3V3 400mW ZENER	MULLARD	BZY88C3V3	1
W1	209003	1A5 100V BRIDGE RECT	MICRO-ELECTRONICS	W001	4
W2	209003	1A5 100V BRIDGE RECT	MICRO-ELECTRONICS	W001	—
W3	209003	1A5 100V BRIDGE RECT	MICRO-ELECTRONICS	WD01	—
W4	209003	1A5 100V BRIDGE RECT	MICRO-ELECTRONICS	W001	—
Q1	240037	Si NPN TRANSISTOR	MOTOROLA	TIP141	1
Q2	250026	Si PNP TRANSISTOR	MOTOROLA	TIP146	1
Q3	230047	N-CHAN I LIM 5·3mA	TELEDYNE	TCR513	2
Q4	230047	N-CHAN I LIM 5·3mA	TELEDYNE	TCR513	—
M1	260051	-15V 1A REGULATOR	MOTOROLA	MC79.15CT	2
M2	260006	15V 1A REGULATOR	MOTOROLA	MC7815CT	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 29.2.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 PS(IG) PCB ASSY

DRAWING NUMBER 400554 SHEET 4 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
M3	260070	317 ADJ. REGULATOR	NATIONAL	LM317 HVK	1
M4	260006	15V 1A REGULATOR	MOTOROLA	MC7815CT	–
M5		NOT USED			–
M6	260005	5V 1A REGULATOR	MOTOROLA	MC7805CT	1
M7	260051	-15V 1A REGULATOR	MOTOROLA	MC79.15CT	–
M8	260072	-8V 1A REGULATOR	NATIONAL	LM7809CT	1
M9	260071	8V 1A REGULATOR	NATIONAL	LM7808CT	1
L1		NOT USED			
L2	370013	4μH 6A RF CHOKE	ERO	F1756-004-601	2
L3	370013	4μH 6A RF CHOKE	ERO	F1756-004-601	–
L4	370014	8μH 3A RF CHOKE	ERO	F1756-008-301	4
L5	370014	8μH 3A RF CHOKE	ERO	F1756-008-301	–
L6		NOT USED			
L7	370014	8μH 3A RF CHOKE	ERO	F1756-008-301	–
L8		NOT USED			
L9	370014	8μH 3A RF CHOKE	ERO	F1756-008-301	–
L10	370019	PS COMMON MODE CHOKE	SIGA	SEE DRG	1
F1	920128	FUSE 4A 250V 20mm SLO-B	BELLING LEE	L2080A/4	2
F2	920128	FUSE 4A 250V 20mm SLO-B	BELLING LEE	L2080A/4	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD.													

DATE 29.2.84

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 PS(IG) PCB ASSY

DRAWING NUMBER 400554

SHEET 5 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
F3	920143	FUSE 3·15A 250V 20mm SLO-B	BELLING LEE	L2080A/3·15	2
F4	920143	FUSE 3·15A 250V 20mm SLO-B	BELLING LEE	L2080A/3·15	–
F5	920116	FUSE 1A 250V 20mm SLO-B	BELLING LEE	L2080A/1	2
F6	920116	FUSE 1A 250V 20mm SLO-B	BELLING LEE	L2080A/1	–
	590002	22SWG TINNED COPPER WIRE			A/R
	410282-2	PCB			1
	590004	SLEEVE-PTFE	HELLERMANN ELECTRIC	FE10	A/R
	604042	4WAY ·156" PLUG GD. PL.	MOLEX	09-72-2041	5
	611006	M3×10mm POZIPAN STEEL	ZN PL		10
	613005	M3 INT SHAKEPROOF	ZN PL		10
	613007	M3 WASHER STEEL	ZN PL		3
	615002	M3 FULL NUT STEEL	ZN PL		10
	618010	INSULATING PAD SIL TO-220	WARTH	3223-07FR-54	2
	618001	INSULATING BUSH TO-220	MULLARD	56359C	2
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	12
	900003	HEATSINK COMPOUND	RS	554-311	A/R
	900004	SILICONE RUBBER COMPOUND	RS	555-588	A/R
	920088-1	HEATSINK TO-3	SEE DRG		1
	920089-1	HEATSINK TO-220	SEE DRG		1
	920105-1	HEATSINK TO-202	SEE DRG		3
	920126	FUSE HOLDER 20mm PCB	BELLING LEE	L1426	6
	920142	HEATSINK 2 X TO-220	REDPOINT	TV35H19	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD.													

DATE 29.2.84

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 PS(IG) PCB ASSY

DRAWING NUMBER 400554

SHEET 6 OF 6

DRAWING No. 400544	CHK'D	MD
	DATE	4.7.85
	ECO	1958
	REVISION	
	ISSUE	4.0

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION
COMP. LAYOUT.	480544	1	4.0
SCHEMATIC	430544	1	4.0
FUNCTIONAL TEST PROC.	460544/FT	1-4	4.0
FUNCT. TEST TICK LIST.	470544/FT	1	4.0

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD
B. JACKSON	MD	JT
DATE 4th JULY 85	DATE 9.7.85	DATE 23.7.85

TITLE 4200 PS (38V) PCB ASSY

DRAWING No. 400544 SHEET 1 OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	004752	7k5 2% 1/4W MET-OX	ELECTROSIL	TR4	2
R2	011000	100R 1% 1/8W 50ppm MF	HOLCO	H8C	2
R3	000682	6k8 5% 1/3W CARBON	MULLARD	CR25	2
R4	000563	56k 5% 1/3W CARBON	MULLARD	CR25	2
R5	000104	100k 5% 1/3W CARBON	MULLARD	CR25	2
R6	000103	10k 5% 1/3W CARBON	MULLARD	CR25	2
R7	000471	470R 5% 1/3W CARBON	MULLARD	CR25	2
R8	004752	7k5 2% 1/4W MET-OX	ELECTROSIL	TR4	—
R9	011000	100R 1% 1/8W 50ppm MF	HOLCO	H8C	—
R10	000682	6k8 5% 1/3W CARBON	MULLARD	CR25	—
R11	000563	56k 5% 1/3W CARBON	MULLARD	CR25	—
R12	000104	100k 5% 1/3W CARBON	MULLARD	CR25	—
R13	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R14	000471	470R 5% 1/3W CARBON	MULLARD	CR25	—
R15	002392	3k9 5% 1W CARBON	ALLEN BRADLEY	GB5	2
R16	002392	3k9 5% 1W CARBON	ALLEN BRADLEY	GB5	—
R17	000272	2k7 5% 1/3W CARBON	MULLARD	CR25	2
R18	000222	2k2 5% 1/3W CARBON	MULLARD	CR25	2
R19	008041	3R9 5% 1/3W MF	MULLARD	SFR25	2
R20	012741	2k74 1% 1/8W 50ppm MF	HOLCO	H8C	2
R21	013922	39k2 1% 1/8W 50ppm MF	HOLCO	H8C	2
R22	000272	2k7 5% 1/3W CARBON	MULLARD	CR25	—
R23	000222	2k2 5% 1/3W CARBON	MULLARD	CR25	—

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

No.	1	2	3	4
ECO	—	1684	1694	1776
DATE	7.12.83	1.8.84	5.9.84	30.11.84
CHK'D	MD	MD	MD	MD

DATE 1.3.84

DRAWN JL

CHECKED MD

APPROVED [signature]

DATE 8.3.84

datron ELECTRONICS LTD

TITLE 4200 PS (38V) PCB ASSY

DRAWING NUMBER 400544 SHEET 2 OF 5

J.W. 1164

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	008041	3R9 5% 1/3W MF	MULLARD	SFR25	–
R25	012741	2k74 1% 1/8W 50ppm MF	HOLCO	H8C	–
R26	013922	39k2 1% 1/8W 50ppm MF	HOLCO	H8C	–
R27		NOT USED			
R28		NOT USED			
C1	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	3
C2	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	–
C3	110042	100nF 20% 63V POLYESTER	WIMA	MKS2	–
C4	120028	4n7F 20% 100V POLYCARB	WIMA	FKC2	2
C5	120028	4n7F 20% 100V POLYCARB	WIMA	FKC2	–
C6	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	KIR0E35	2
C7	150015	10µF 20% 35V DIP TANT	UNION CARBIDE	K10E35	2
C8	150015	10µF 20% 35V DIP TANT	UNION CARBIDE	K10E35	–
C9	150016	1µF 20% 35V DIP TANT	UNION CARBIDE	KIR0E35	–
C10	180040	10µF 100V AL ELECT	ECC	SMV8	2
C11	180040	10µF 100V AL ELECT	ECC	SMV8	–
C12		NOT USED			
C13		NOT USED			

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.													
E.C.O.													
DATE													
CHKD.													

DATE 1.3.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 PS (38V) PCB ASSY

DRAWING NUMBER 400544 SHEET 3 OF 5

J.W. 1164

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D1	210270	27V 400mW ZENER	MULLARD	BZY88C27	2
D2	210270	27V 400mW ZENER	MULLARD	BZY88C27	–
D3	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	2
D4	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	–
D5	214012	2V45 30ppm ZENER	FERRANTI	ZN458	2
D6	214012	2V45 30ppm ZENER	FERRANTI	ZN458	–
D7	210068	6V8 400mW ZENER	MULLARD	BZY88C6V8	2
D8	210068	6V8 400mW ZENER	MULLARD	BZY88C6V8	–
D9		NOT USED			
D10		NOT USED			
D11		NOT USED			
D12		NOT USED			
Q1	250026	Si PNP TRANSISTOR	MOTOROLA	TIP146	1
Q2	240037	Si NPN TRANSISTOR	MOTOROLA	TIP141	1
Q3	250018	Si PNP TRANSISTOR	MOTOROLA	BC556/TO18	–
Q4	250018	Si PNP TRANSISTOR	MOTOROLA	BC556/TO18	3
Q5	240029	Si NPN TRANSISTOR	MOTOROLA	BC546/TO18	–
Q6	240029	Si NPN TRANSISTOR	MOTOROLA	BC546/TO18	3
Q7	250018	Si PNP TRANSISTOR	MOTOROLA	BC556/TO18	–
Q8	240029	Si NPN TRANSISTOR	MOTOROLA	BC546/TO18	–
Q9		NOT USED			
Q10		NOT USED			

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.													
E.C.O.													
DATE													
CHKD.													

DATE 1.3.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 PS (38V) PCB ASSY

DRAWING NUMBER 400544 SHEET 4 OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
M1	260043	358 DUAL OP AMP	NATIONAL	LM358N	1
F1	920120	FUSE 1A 125V 7mm	LITTLEFUSE	275 001	2
F2	920120	FUSE 1A 125V 7mm	LITTLEFUSE	275 001	-
	410254-2	PCB			1
	605059/A	8 WAY DIL SOCKET			1
	611016	M3x8mm POZIPAN STEEL	ZN. PL.		2
	613005	M3 INT. SHAKEPROOF	ZN. PL.		2
	615002	M3 FULL NUT STEEL	ZN. PL.		2
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	8
	900003	HEATSINK COMPOUND	RS	554-311	A/R
	920141	HEATSINK TO-220	AAVID	5041B	2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.													
E.C.O.													
DATE													
CHKD													

DATE 1.3.84

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 PS(38V)PCB ASSY

DRAWING NUMBER 400544

SHEET 5 OF 5

DRAWING No.	CHK'D			
400538	DATE	5-7-85	14.11.85	29.1.86
	ECO	1958	2056	2107
	REVISION	9.0	9.1	9.1
	ISSUE	9.0	9.1	9.2

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION
COMPONENT LAYOUT	480538	1	9.0 / 9.1 / 9.2
SCHEMATIC	430538	1	9.0 / 9.1
FUNCTIONAL TEST PROC.	460538/FT	1-2	9.0
FUNCT. TEST TICK LIST	470538/FT	1	9.0

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD	TITLE	DRAWING No.
IL	NSD		4200 PA (POS) H/S ASSY.	400538
DATE 5.7.85	DATE 12.7.85	DATE		SHEET 1 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1		NOT USED			2
R2	008057	22k 5% 9W WW RES	WELWYN	W23	–
R3	000101	100R 5% 1/3W CF RES	MULLARD	CR25	3
R4	000101	100R 5% 1/3W CF RES	MULLARD	CR25	–
R5	000681	680R 5% 1/3W CF RES	MULLARD	CR25	2
R6	000681	680R 5% 1/3W CF RES	MULLARD	CR25	–
R7	008055	2R2 1% 1/2W MET GLAZE	NEOHM	RGP0207	4
R8	008055	2R2 1% 1/2W MET GLAZE	NEOHM	RGP0207	–
R9	008055	2R2 1% 1/2W MET GLAZE	NEOHM	RGP0207	–
R10	064202	2k 15 TURN V CM POT	BECKMAN	89P	1
R11	090135	10K NTC THERMISTOR	FENWAL	UUA41J1	2
R12	090135	10k NTC THERMISTOR	FENWAL	UUA41J1	–
R13	008055	2R2 1% 1/2W MET GLAZE	NEOHM	RGP0207	–
R14	008021	0R47 5% 2·5W WW RES	WELWYN	W21	1
R15	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	4
R16	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	–
R17	000621	620R 5% 1/3W CF RES	MULLARD	CR25	1
R18	000108	1R 5% 1/3W CF RES	MULLARD	CR25	1
R19	000101	100R 5% 1/3W CF RES	MULLARD	CR25	–
R20	000102	1K 5% 1/3W CF. RES	MULLARD	CR25	1
R21		NOT USED.			–
R22	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	–
R23	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	–

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS.	1	2	3	4	5	6	7	8	9
ECO	–	1668	1706	1716	1741	1777	1818	1830	1869
DATE	29.5.84	25-7-84	20.9.84	4-10-84	25.10.84	28.11.84	14.1.85	29.1.85	19-4-85
CHK'D	MD	MD	MD	MD	MD	MD	MD	AP	

DATE 22.2.84 | DRAWN IL | CHECKED SLG Liam Biddle | APPROVED | DATE 29.5.84

datron ELECTRONICS LTD

TITLE 4200 PA (POS) H/S ASSY

DRAWING NUMBER 400538 | SHEET 2 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
C1	110043	10nF 20% 630V POLYESTER	WIMA	MKS4	1
C2		NOT USED			–
C3	150017	100μF 20% 16V DT CAP	UNION CARBIDE	K100E16	1
C4		NOT USED			–
C5	102471	470pF ±10% 500V CER DISC	ITT	CD10	2
C6	102471	470pF ±10% 500V CER DISC	ITT	CD10	–
C7		NOT USED			–
C8		NOT USED			–
C9		NOT USED			–
C10	110053	47nF 10% 630V POLYESTER	WIMA	MKS4	4
C11	110053	47nF 10% 630V POLYESTER	WIMA	MKS4	–
C12	110053	47nF 10% 630V POLYESTER	WIMA	MKS4	–
C13	110053	47nF 10% 630V POLYESTER	WIMA	MKS4	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS												
ECO												
DATE												
CHKD												

DATE 14.11.85 | datron ELECTRONICS LTD

DRAWN IL | TITLE 4200. P.A. POS H/S. ASSY.

CHECKED | APPROVED | DATE

DRAWING NUMBER 400538 | SHEET 3 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
D1	210100	10V 400mW ZENER	MULLARD	BZY88C10	4
D2	210100	10V 400mW ZENER	MULLARD	BZY88C10	–
D3	210100	10V 400mW ZENER	MULLARD	BZY88C10	–
D4	210100	10V 400mW ZENER	MULLARD	BZY88C10	–
D5	200020	1A 1k5V FR Si DIODE	MOTOROLA	BY339	1
D6	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	1
D7	210027	2V7 400mW ZENER	MULLARD	BZY88C2V7	1
Q1	239067-1	MTM 2NB5 MATCHED	DATRON	SEE DRG.	2 PAIRS.
Q2		PAIR.			–
Q3	239067-1	MTM 2NB5 MATCHED	DATRON	SEE DRG.	–
Q4		PAIR.			–
Q5	240023	Si NPN TRANSISTOR	NATIONAL	BD135	1
Q6	240004	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	1
Q7	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS												
ECO												
DATE												
CHKD												

DATE 22.2.84 | datron ELECTRONICS LTD

DRAWN IL | TITLE 4200. PA (POS) H/S ASSY

CHECKED | APPROVED | DATE

DRAWING NUMBER 400538 | SHEET 4 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	410245-4	PCB			1
	450454-1	HEATSINK 64mm			1
	450455-1	HEATSINK 91mm			1
	420080-1	HIGH VOLTAGE LABEL			2
	510000	7/·2 PVC INSULATED (BLK) WIRE			A/R
	510111	7/·2 PVC INSULATED (BRN) WIRE			A/R
	510222	7/·2 PVC INSULATED (RED) WIRE			A/R
	510444	7/·2 PVC INSULATED (YEL) WIRE			A/R
	510555	7/·2 PVC INSULATED (GRN) WIRE			A/R
	510666	7/·2 PVC INSULATED (BLUE) WIRE			A/R
	510777	7/·2 PVC INSULATED (VIO.) WIRE			A/R
	510888	7/·2 PVC INSULATED (GREY) WIRE			A/R
	510999	7/·2 PVC INSULATED (WHITE) WIRE			A/R
	510333	7/·2 PVC INSULATED (OR) WIRE			A/R
	560001	2 CORE 7/·2 BRAIDED SCN. CABLE			·22M
	590001	SLEEVE MAX CABLE ⌀3·0	HELLERMANN ELECTRIC	H15 x 20mm BLACK HELSYN	6
	590003	HEATSHRINK SLEEVE ⌀6·4	RS OR HELLERMANN	399-524 OR LVR64	40mm
	590002	SLEEVE MAX CABLE ⌀6·0	HELLERMANN ELECTRIC	H30 x 25mm BLACK HELSYN	2
J1	605052	8 WAY ·1" HOUSING	MOLEX	22-01-2085	1
	605057	CRIMP TERMINAL GD. PL.	MOLEX	4809-GL	12
	605118-1	SOCKET ⌀1·02	CAMBION	SEE DRAWING A4	8
	611006	M3 x 10mm POZIPAN STEEL	ZN PL		10
	611027	M3 x 20mm POZIPAN STEEL	ZN PL		2

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 22.2.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200.PA.(POS) H/S ASSY

DRAWING NUMBER 400538 SHEET 5 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	612004-1	M3 x 4mm STANDOFF	HARWIN	CS2116/8	8
	613029	M3 WAVY WASHER SS			14
	613007	M3 WASHER STEEL ZN.PL.			2
	615002	M3 FULL NUT STEEL ZN PL.			2
	620003	SOLDER PIN	HARWIN	H2105A01	12
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	4
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	Nº2	2
	630126	'P' CLIP ⌀7·9mm	RICHCO	N5	1
	613017	M3 WASHER NYLON			1
	900003	HEATSINK COMPOUND	RS	554-311	A/R
FB1	920145	FERROXCUBE BEAD	MULLARD	FX4026	1
	590033	SLEEVE. MAX CABLE ⌀10	HELLERMANN ELECTRIC	H50 x 25mm BLK. HELSYN	2
	590006	⌀2·4 HEATSHRINK SLEEVE			A/R
	590060	0·5mm I/D PTFE SLEEVE	HELLERMANN	FE051	A/R
J3	605053	12-WAY ·1" HOUSING	MOLEX	22-01-2125	1
	900012	EPOXY ADHESIVE	ARALDITE	100	A/R
	614001	M3 CLEAR x 4mm STANDOFF	HARWIN	CS2117B	4
	540002	22 SWG B.T.C. WIRE			A/R

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 22.2.84
DRAWN IL
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200.PA(POS) H/S ASSY

DRAWING NUMBER 400538 SHEET 6 OF 6

DRAWING No. 400539	CHK'D	MD	MD	MD	
	DATE	5.7.85	15.11.85	29.1.86	
	ECO	1958	2056	2118	
	REVISION	7.0	7.1	7.1	
	ISSUE				

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION		
COMPONENT LAYOUT	480539	1	7.0	7.1	
SCHEMATIC	430539	1	7.0	7.1	7.2
FUNCTIONAL TEST PROC	460539/FT	1-2	7.0		
FUNC. TEST TICK LIST	470539/FT	1	7.0		

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD	TITLE	DRAWING No
IL.	MJD		4200 PA (NEG) H/S ASSY.	400539
DATE 10.7.85	DATE 12.7.85	DATE		SHEET 1 of 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R1		NOT USED			–
R2	008057	22k 5% 9W WW RES	WELWYN	W23	–
R3	000101	100R 5% 1/3W CF RES	MULLARD	CR25	3
R4	000101	100R 5% 1/3W CF RES	MULLARD	CR25	–
R5	000681	680R 5% 1/3W CF RES	MULLARD	CR25	2
R6	008055	2R2 1% 1/2W MET-GLAZE	NEOHM	RGP0207	4
R7	008055	2R2 1% 1/2W MET-GLAZE	NEOHM	RGP0207	–
R8	000681	680R 5% 1/3W CF RES	MULLARD	CR25	–
R9	090135	10k NTC THERMISTOR	FENWAL	UUA41J1	2
R10	090135	10k NTC THERMISTOR	FENWAL	UUA41J1	–
R11	008055	2R2 1% 1/2W MET-GLAZE	NEOHM	RGP0207	–
R12	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	4
R13	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	–
R14	008055	2R2 1% 1/2W MET-GLAZE	NEOHM	RGP0207	–
R15	008021	0R47 5% 2·5W WW RES	WELWYN	W21	1
R16	000101	100R 5% 1/3W CF RES	MULLARD	CR25	–
R17	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	–
R18	012743	274k 1% 1/8W 50ppm MF	HOLCO	H8C	–
C1	110043	10nF 20% 630V POLYESTER	WIMA	MKS4	4
C2	110043	10nF 20% 630V POLYESTER	WIMA	MKS4	–
C3	110043	10nF 20% 630V POLYESTER	WIMA	MKS4	–
C4	110043	10nF 20% 630V POLYESTER	WIMA	MKS4	–

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

	1	2	3	4	5	6	7							
ECO	–	1969	1717	1741	1777	1817	1869							
DATE	29.5.84	24.7.84	4.10.84	25.10.84	28.11.84	14.1.85	19.4.85							
CHKD	MD	MD	MD	MD	MD	MD	MD							

DATE 22.2.84	datron ELECTRONICS LTD
DRAWN IL.	TITLE 4200. PA (NEG) H/S ASSY
CHECKED Peter Birch	
APPROVED MJ	
DATE 29.5.84	DRAWING NUMBER 400539 SHEET 2 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C5	110053	47nF 10% 630V POLYESTER	WIMA	MKS4	4
C6	110053	47nF 10% 630V POLYESTER	WIMA	MKS4	–
C7	110053	47nF 10% 630V POLYESTER	WIMA	MKS4	–
C8	110053	47nF 10% 630V POLYESTER	WIMA	MKS4	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 15.11.85
DRAWN IL.
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200. P.A.(NEG.) H/S ASSY.

DRAWING NUMBER 400539

SHEET 3 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
D1	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	6
D2	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	–
D3	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	–
D4	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	–
D5	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	–
D6	213019	200V 5% 1/2W ZENER	MULLARD	BZX79C200	–
D7	210100	10V 400mW ZENER	MULLARD	BZY88C10	4
D8	210100	10V 400mW ZENER	MULLARD	BZY88C10	–
D9	210100	10V 400mW ZENER	MULLARD	BZY88C10	–
D10	210100	10V 400mW ZENER	MULLARD	BZY88C10	–
D11	200020	1A 1k5V FR Si DIODE	MOTOROLA	BY339	1
D12	200001	75mA 75V GP Si DIODE	FAIRCHILD	IN4148	1
Q1	239068-1	MTM2P50 MATCHED PAIR.	DATRON	SEE DRG.	2 PAIRS.
Q2					–
Q3	239068-1	MTM2P50 MATCHED PAIR.	DATRON	SEE DRG.	–
Q4					–
Q5	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	1
Q6	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS														
ECO														
DATE														
CHKD														

DATE 22.2.84
DRAWN IL.
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200. PA (NEG) H/S ASSY

DRAWING NUMBER 400539

SHEET 4 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
	410246-4	PCB			1
	420080-1	LABEL 'DANGER HIGH VOLTAGE'			2
	450454-1	HEATSINK 64mm			1
	450455-1	HEATSINK 91mm			1
	605118-1	SOCKET Ø1·02	CAMBION	SEE DRAWING. A4.	8
	590001	SLEEVE MAX. CABLE Ø3·0	HELLERMANN ELECTRIC	H15 X 20mm BLACK HELSYN	3
	590002	SLEEVE MAX. CABLE Ø6·0	HELLERMANN ELECTRIC	H15 X 25mm BLACK HELSYN	3
FB2	920145	FERROXCUBE BEAD	MULLARD	FX4026	1
J1	604033	4 WAY ·1" PCB PLUG GD.PL.	MOLEX	22-29-2041	2
J2	605053	12 WAY ·1" HOUSING	MOLEX	22-01-2125	1
	605057	CRIMP TERMINAL GD.PL.	MOLEX	4809-GL	5
	611006	M3 x 10mm POZIPAN STEEL	ZN PL		11
	611027	M3 x 20mm POZIPAN STEEL	ZN PL		1
	612004-1	M3 x 4mm STANDOFF	HARWIN	CS2116/8	8
	613029	M3 WAVY WASHER SS			13
	613007	M3 WASHER STEEL	ZN PL		1
	615002	M3 FULL NUT STEEL	ZN PL		1
	620003	SOLDER PIN	HARWIN	H2105A01	5
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	4
	630003	'P' CLIP Ø4·8mm	SES	CN5	1
	900003	HEATSINK COMPOUND	RS	554-311	A/R

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 23.2.84.
DRAWN IL.
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200. PA (NEG) H/S ASSY

DRAWING NUMBER 400539 SHEET 5 OF 6

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
	510222	7/·2 PVC INSULATED (RED) WIRE			A/R
	510444	7/·2 PVC INSULATED (YEL) WIRE			A/R
	510666	7/·2 PVC INSULATED (BLUE) WIRE			A/R
	510999	7/·2 PVC INSULATED (WHITE) WIRE			A/R
	510333	7/·2 PVC INSULATED (OR) WIRE			A/R
	590006	Ø2·4 HEATSHRINK SLEEVE			A/R
	590060	0·5mm I/D PTFE SLEEVE	HELLERMANN	FE051	A/R
	630024	STEATITE BEAD 16SWG	PARK ROYAL PORCELAIN	Nº 2	2
	900012	EPOXY ADHESIVE	ARALDITE	100	A/R
	614001	M3 CLEAR x4mm STANDOFF	HARWIN	CS2117B	4

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 22. 2. 84
DRAWN IL.
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200. PA (NEG) H/S ASSY

DRAWING NUMBER 400539 SHEET 6 OF 6

DRAWING No. 400540	CHK'D	ND	ND	ND
	DATE	10.7.85	29.10.85	3.12.85
	ECO	1958	2048	2069
	REVISION	6·0	6.1	6·1
	ISSUE			

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE + REVISION		
COMPONENT LAYOUT	480540	1	6·0		6.1
SCHEMATIC	430540	1	6·0		
FUNCTIONAL TEST PROC	460540/FT	1-5	6·0		
FUNC. TEST TICK LIST	470540/FT	1	6·0		

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD
IL	NSO	JST
DATE 10.7.85	DATE 12.7.85	DATE 23.7.85

TITLE 4200 PS/I H/S ASSY

DRAWING No. 400540 SHEET 1 OF 8

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000101	100R 5% 1/3W CF RES	MULLARD	CR25	2
R2	008037	0R18 10% 2·5W WW RES	WELWYN	W21	2
R3	008037	0R18 10% 2·5W WW RES	WELWYN	W21	–
R4	000101	100R 5% 1/3W CF RES	MULLARD	CR25	–
R5	008045	10k 1% 1/2W MET-GLAZE	NEOHM	RGP0207	2
R6	000102	1k 5% 1/3W CF RES	MULLARD	CR25	1
R7	000220	22R 5% 1/3W CF RES	MULLARD	CR25	1
R8	006105	1M 2% 1W MET-OX	ELECTROSIL	FP1	4
R9	014991	4k99 1% 1/8W 50ppm MF	HOLCO	H8C	2
R10	016811	6k81 1% 1/8W 50ppm MF	HOLCO	H8C	2
R11		NOT USED			–
R12	000821	820R 5% 1/3W CF RES	MULLARD	CR25	2
R13	006105	1M 2% 1W MET-OX	ELECTROSIL	FP1	–
R14	007204	200k 2% 2W MET-OX	ELECTROSIL	FP2	4
R15	011821	1k82 1% 1/8W 50ppm MF	HOLCO	H8C	2
R16	016192	61k9 1% 1/8W 50ppm MF	HOLCO	H8C	2
R17	008062	10R 1% 2½W WW RES	WELWYN	W21	2
R18	006105	1M 2% 1W MET-OX	ELECTROSIL	FP1	–
R19	007204	200k 2% 2W MET-OX	ELECTROSIL	FP2	–
R20	011821	1k82 1% 1/8W 50ppm MF	HOLCO	H8C	–
R21	016192	61k9 1% 1/8W 50ppm MF	HOLCO	H8C	–
R22	006105	1M 2% 1W MET-OX	ELECTROSIL	FP1	–
R23	008062	10R 1% 2½W WW RES	WELWYN	W21	–

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4	5	6
ECO	–	1691	1731. 1740	1775. 1805	1869	1902
DATE	29.5.84	20.8.84	18.10.84	9.1.85	19-4-85	30-4-85
CHKD	ND	ND			ND	ND

DATE 23.2.84

datron ELECTRONICS LTD

DRAWN IL

CHECKED NC

APPROVED JST

DATE 29.5.85

TITLE 4200. PS/I H/S ASSY

DRAWING NUMBER 400540

SHEET 2 OF 8

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R24	008045	10k 1% ½W MET-GLAZE	NEOHM	RGP0207	—
R25		NOT USED			—
R26	000821	820R 5% ⅓W CF RES	MULLARD	CR25	—
R27	014991	4k99 1% ⅛W 50ppm MF	HOLCO	H8C	—
R28		NOT USED			—
R29	016811	6k81 1% ⅛W 50ppm MF	HOLCO	H8C	—
R30	007204	200k 2% 2W MET-OX	ELECTROSIL	FP2	—
R31	007204	200k 2% 2W MET-OX	ELECTROSIL	FP2	—
R32	005470	47R 2% ½W MET-OX	ELECTROSIL	TR5	2
R33	005470	47R 2% ½W MET-OX	ELECTROSIL	TR5	—
R34. R35	013920	392R 1% ⅛W 50ppm MF	HOLCO	H8C	2
C1	104025	100nF $^{+80}_{-20}$% 50V CER DISC	SIEMENS	B37449	1
C2		NOT USED			—
C3		NOT USED			—
C4		NOT USED			—
C5	180045	47µF 63V AL. ELECT.	MULLARD	031-38479	2
C6	180045	47µF 63V AL. ELECT.	MULLARD	031-38479	—
C7		NOT USED			—
C8	120033	2n2F 20% 1kV POLYCARB	WIMA	FKC3	2
C9	150006	4µ7F 20% 16V DIP TANT	UNION CARBIDE	K4R7E16	2
C10	120033	2n2F 20% 1kV POLYCARB	WIMA	FKC3	—
C11	150006	4µ7F 20% 16V DIP TANT	UNION CARBIDE	K4R7E16	—
C12		NOT USED			—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O													
DATE													
CHKD													

DATE 23.2.84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200. PS/I H/S ASSY

DRAWING NUMBER 400540

SHEET 3 OF 8

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C13	104043	100pF 10% 500V CER DISC	STC	CD10KWK100PMSSS500 DSC	2
C14	104043	100pF 10% 500V CER DISC	STC	CD10KWK100PMSSS500DSC	—
C15	150010	330nF 20% 35V DIP TANT	UNION CARBIDE	KR33E35	2
C16	150010	330nF 20% 35V DIP TANT	UNION CARBIDE	KR33E35	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O													
DATE													
CHKD													

DATE 18.10.84

DRAWN

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200. PS/I HS ASSY.

DRAWING NUMBER 400540

SHEET 4 OF 8

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
D1	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	2
D2	210150	15V 400mW ZENER	MULLARD	BZY88C15	4
D3	213020	30V 5% ½W ZENER	MULLARD	BZX79C30	2
D4	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	4
D5	213021	56V 2% 400mW ZENER	MULLARD	BZX79B56	2
D6	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	–
D7	214014	1V22 100ppm ZENER	TELEDYNE	9491BJ	2
D8	210150	15V 400mW ZENER	MULLARD	BZY88C15	–
D9	210150	15V 400mW ZENER	MULLARD	BZY88C15	–
D10	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	–
D11	213020	30V 5% ½W ZENER	MULLARD	BZX79C30	–
D12	213021	56V 2% 400mW ZENER	MULLARD	BZX79B56	–
D13	200006	1A 600V GP Si DIODE	FAIRCHILD	IN4005	–
D14	210150	15V 400mW ZENER	MULLARD	BZY88C15	–
D15	210056	5V6 400mW ZENER	MULLARD	BZY88C5V6	–
D16	214014	1V22 100ppm ZENER	TELEDYNE	9491BJ	–
Q1	240036	Si NPN DARL. TRANSISTOR	MOTOROLA	MJ1000	1
Q2	250024	Si PNP DARL. TRANSISTOR	MOTOROLA	MJ900	1
Q3	230063	N-CHAN T.MOS JFET	MOTOROLA	MTP2N85	1
Q4	250001	Si PNP TRANSISTOR	NATIONAL	BC214/TO18	1
Q5	240006	Si NPN TRANSISTOR	NATIONAL	2N3904/TO18	1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E.C.O.													
DATE													
CHKD													

DATE 23.2.84	datron ELECTRONICS LTD
DRAWN IL.	TITLE 4200. PS/I H/S ASSY
CHECKED	
APPROVED	
DATE	DRAWING NUMBER 400540 SHEET 5 OF 8

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
Q6	250004	Si PNP TRANSISTOR	NATIONAL	2N3906/TO92	1
Q7	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO92	2
Q8	230001	N-CHAN I LIM 1·4mA	TELEDYNE	TCR506	2
Q9	230062	P-CHAN T.MOS JFET	MOTOROLA	MTM2P50	1
Q10	230001	N-CHAN I LIM 1·4mA	TELEDYNE	TCR506	–
Q11	230064	P-CHAN T.MOS JFET	MOTOROLA	MTP2P50	1
Q12	230061	N-CHAN T.MOS JFET	MOTOROLA	MTM2N85 TO3	1
Q13	240001	Si NPN TRANSISTOR	NATIONAL	BC184/TO18	–
M1	220018	Hi-SPEED OPTO ISOLATOR	HP	6N136	2
M2	220018	Hi-SPEED OPTO ISOLATOR	HP	6N136	–
	410247-2	PCB			1
	420080-1	LABEL 'DANGER HIGH VOLTAGE'			1
	450456-1	HEATSINK			1
	510111	7/·2 PVC INSULATED (BRN) WIRE	RS		A/R
	510222	7/·2 PVC INSULATED (RED) WIRE	RS		A/R
	510444	7/·2 PVC INSULATED (YEL) WIRE	RS		A/R
	510555	7/·2 PVC INSULATED (GRN) WIRE	RS		A/R
	510666	7/·2 PVC INSULATED (BLU) WIRE	RS		A/R

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.													
E.C.O.													
DATE													
CHKD													

DATE 23.2.84	datron ELECTRONICS LTD
DRAWN IL.	TITLE 4200. PS/I H/S ASSY.
CHECKED	
APPROVED	
DATE	DRAWING NUMBER 400540 SHEET 6 OF 8

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
	510777	7/·2 PVC INSULATED (VIO) WIRE	RS		A/R
	530000	24/·2 PVC INSULATED (BLK) WIRE	RS		A/R
	530111	24/·2 PVC INSULATED (BRN) WIRE	RS		A/R
	530222	24/·2 PVC INSULATED (RED) WIRE	RS		A/R
	530333	24/·2 PVC INSULATED (OR.) WIRE	RS		A/R
	530444	24/·2 PVC INSULATED (YEL) WIRE	RS		A/R
	530555	24/·2 PVC INSULATED (GRN) WIRE	RS		A/R
	530666	24/·2 PVC INSULATED (BLUE) WIRE	RS		A/R
	530777	24/·2 PVC INSULATED (VIO) WIRE	RS		A/R
	530888	24/·2 PVC INSULATED (GREY) WIRE	RS		A/R
					A/R
	605059/A	8 WAY DIL SOCKET			
	605052	8 WAY ·1" HOUSING	MOLEX	22-01-2085	2
	605057	CRIMP TERMINAL GD.PL	MOLEX	4809-GL	1
	605077	CRIMP TERMINAL GD. PL	MOLEX	08-56-0106	6
	605099	5 WAY ·156" HOUSING	MOLEX	09-91-0501	11
	605100	9 WAY ·156" HOUSING	MOLEX	09-91-0901	2
					1
	611016	M3 x 8mm POZIPAN STEEL	ZN PL		1
	611017	M3 x 16mm POZIPAN STEEL	ZN PL		2
	611027	M3 x 20mm POZIPAN STEEL	ZN PL		5
	612022-1	M3 x 3mm STANDOFF	DATRON	SEE DRG. 612###	3
	613007	M3 WASHER STEEL	ZN PL		8
					3

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

PS														
E.C.O														
DATE														
CHKD														

DATE 23.2.84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 PS/I H/S ASSY

DRAWING NUMBER 400540

SHEET 7 OF 8

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
	613029	M3 WAVY WASHER	ZN PL		13
	615002	M3 FULL NUT STEEL	ZN PL		5
	606010	POLARISING KEY	MOLEX	15-04-0219	1
	618008	INSULATING BUSH TO3	MULLARD/ASSMANN	56201C/V5358	8
	618009	INSULATING PAD SIL TO3	WARTH	3223-07FR-06	4
	620003	SOLDER PIN	HARWIN	H2105A0	18
	630004	'P' CLIP ⌀ 6·4mm	SES	CN6	1
	605118-1	SOCKET ⌀ 1·02	CAMBION	SEE DRAWING. A4	8
	920087-1	HEATSINK TO-92	SEE DRG		1
	630126	'P' CLIP ⌀ 7·9 mm	RICHCO	N5	1
	590001	SLEEVE. MAX CABLE ⌀ 3·0	HELLERMAN ELECTRIC	H1S x 20 BLACK HELSYN	3
	590005	SLEEVE. MAX CABLE ⌀ 4·0	HELLERMANN ELECTRIC	H20 x 20 BLACK HELSYN	6
	590028	SLEEVE. HEATSHRINK PVC	HELLERMANN ELECTRIC	EHN105	0·5M
	590037	SLEEVE. MAX CABLE ⌀ 10	HELLERMANN ELECTRIC	H50 x 25 BLACK HELSYN	3
	590000	SLEEVE. ⌀1·0 PTFE	HELLERMANN ELECTRIC	FE10	A/R

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

PS														
E.C.O														
DATE														
CHKD														

DATE 23.2.84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200. PS/I H/S ASSY

DRAWING NUMBER 400540

SHEET 8 OF 8

DRAWING No.	CHK'D	DATE	ECO	REVISION	ISSUE
400565		4-7-85	1958	4	0

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE + REVISION
COMP. LAYOUT.	480565	1	4·0
SCHEMATIC	430565	1	4·0

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD
B.JACKSON	MJD	
DATE 4-7-85.	DATE 9.7.85	DATE 22.7.85

TITLE 4200 H.V. PCB ASSY

DRAWING No. 400565 SHEET 1 OF 3

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	000103	10k 5% 1/3W CARBON	MULLARD	CR25	1
R2	000183	18k 5% 1/3W CARBON	MULLARD	CR25	1
R3	000332	3k3 5% 1/3W CARBON	MULLARD	CR25	1
R4	000393	39k 5% 1/3W CARBON	MULLARD	CR25	1
R5	000473	47k 5% 1/3W CARBON	MULLARD	CR25	1
AN1	090130	15k x 4 2% SIL. NETWORK	BECKMAN	L08-3-R15k	1
AN2	090095	47k x4 2% NETWORK	BECKMAN	L08-3-R47k	1
AN3	090131	10k x 4 2% SIL. NETWORK	BECKMAN	L08-3-R10k	1
AN4	090096	1M x 8 2% NETWORK	BECKMAN	L09-1-R1M	1
C1	104026	47nF $^{+50}_{-20}$% 50V CER DISC	SIEMENS	B37449	1
D1	213009	15V 5W ZENER	UNITRODE	TVS515	1
Q1	250001	Si PNP TRANSISTOR		BC214	1
M1	290089	7 x DARLINGTON DRIVER	SPRAGUE / EXAR	ULN2003A / XR2203CP	1
M2	280037	HEX BUFFER	MOTOROLA	MC14050BCP	1

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4
ECO	—	1683	1756	1708
DATE	18.7.84	1-8-84	8.11.84	18-12-84
CHK'D	MD	MD	MD	MD

DATE	16.5.84
DRAWN	IL
CHECKED	RJC
APPROVED	MJD
DATE	18.7.84

datron ELECTRONICS LTD

TITLE 4200 HV. PCB. ASSY.

DRAWING NUMBER 400565 SHEET 2 OF 3

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
RL1	330029	RELAY 2P2W	SDS	DS2E-DC24V	1
RL2	330033	RELAY 2P N/O 5A 2kV	SDS	JC2a DC24V	2
RL3	330033	RELAY 2P N/O 5A 2kV	SDS	JC2a DC24V	–
L1	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	2
L2	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
	410251-3A	PCB			1
	450461-1	H.V. PCB SAFETY SCREEN.			1
	540002	22 SWG TINNED CU WIRE			A/R
	604033	4WAY ·1" PCB PLUG GD. PL	MOLEX	22-29-2041	7
	605061/A	16 WAY DIL SOCKET			2
	611016	M3 x 8mm POZIPAN STEEL	ZN. PL.		2
	613029	M3 WAVY WASHER SS			2
	615002	M3 FULL STEEL NUT	ZINC PLATED.		2
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	2
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	Nº 2	2
	550004	1·0mm PTFE SLEEVE			A/R
	613007	M3 WASHER STEEL	ZN.PL.		2

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 16. 5. 84	datron ELECTRONICS LTD
DRAWN IL.	TITLE 4200 HV. PCB. ASSY.
CHECKED	
APPROVED	
DATE	DRAWING NUMBER 400565 — SHEET 3 OF 3

DRAWING No. 400541	CHK'D	MJO	MJO	MJO
	DATE	3-7-85	6-12-85	11-12-85
	ECO	1958	2061	2072
	REVISION	3·0	4·0	4·1
	ISSUE			

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE . REVISION		
COMP. LAYOUT.	480541	1	3·0	4·0	4·1
FUNCTIONAL TEST PROC.	460541/FT	1	3·0	4·0	
FUNCT. TEST TICK LIST.	470541/FT	1	3·0	4·0	

NOTES

□ INDICATES NO CHANGE TO DOCS AT ISSUE LEVEL CHANGE

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD	TITLE	DRAWING No.
B. JACKSON	MJO		4200 MAINS TRANSFORMER. ASSY	400541 SHEET 1 OF 3
DATE 3-7-85	DATE 9.7.85	DATE 23.7.85		

400541

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	008043	120K 5% 50W AL. W.W.	DALE	RH-50	1
	300023-2	4200 MAINS TRANSFORMER	SIGA	SEE DRG.	1
	450413-1	4200 HV SWITCH BRACKET			1
	450434-3	4200 MAINS TX PLATE.			1
	521006	16/0·2 PVC INSULATED WIRE. GREEN/YELLOW			A/R
	521002	16/0·2 PVC INSULATED WIRE. WHITE/RED.			A/R
	530111	24/0·2 PVC INSULATED WIRE. BROWN.			A/R
	530444	24/0·2 PVC INSULATED WIRE. YELLOW.			A/R
	530555	24/0·2 PVC INSULATED WIRE. GREEN.			A/R
	530666	24/0·2 PVC INSULATED WIRE. BLUE.			A/R
	530999	24/0·2 PVC INSULATED WIRE. WHITE.			A/R
	512999	7/0·2 PTFE INSULATED WIRE. WHITE.			0·35M
	590005	SLEEVING H 20 X 20 BLACK			10
	590006	SLEEVE HEATSHRINK Ø 2·4			A/R
	590033	SLEEVING H50X25 BLACK			14
	590031	SLEEVE HEATSHRINK Ø3·2			A/R
	605052	8WAY 0·1" HOUSING	MOLEX	22-01-2085.	1
	605057	CRIMP TERMINAL GD PL	MOLEX	4809-GL	2
	605077	CRIMP TERMINAL GD PL	MOLEX	08-56-0106	31
	605099	5WAY 0·156" HOUSING	MOLEX	09-91-0501	1
	605100	9WAY 0·156" HOUSING	MOLEX	09-91-0901	4

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3
ECO	RELEASED	1772	1935
DATE	2-10-84	22-11-84	4th Jan 85
CHK'D	MO	MO	MO

DATE	datron ELECTRONICS LTD
6th MAR 84	
DRAWN B. JACKSON	TITLE 4200 MAINS TRANSFORMER ASSY
CHECKED	
APPROVED	
DATE 2.10.84	DRAWING NUMBER 400541 SHEET 2 OF 3

400541

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	605136	0·093" MALE CRIMP TERM.GD.	MOLEX	02-09-6123	5
	606010	POLARISING KEY	MOLEX	15-04-0219	4
	604068	6WAY 0·093" PLUG	MOLEX	03-09-2062.	1
	611015	M3x 8mm POZI-CSK STEEL	ZN PL		5
	611069	M5x 8mm HEX HD STEEL			2
	613005	M3 INT SHAKEPROOF			3
	613009	4BA SOLDER TAG BRASS	TIN PL		5
	613028	M5 INT SHAKEPROOF			2
	615002	M3 FULL NUT STEEL	ZN PL		3
	700033	SWITCH 4P 2P C/O.	ARROW-HART	CTS12 BP4	1
	900009	LOCKING COMPOUND	LOCTITE	222	A/R.

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 6th MAR 84	datron ELECTRONICS LTD
DRAWN B.JACKSON	TITLE "4200" MAINS TRANSFORMER ASSY
CHECKED	
APPROVED	
DATE	DRAWING NUMBER 400541 — SHEET 3 OF 3

DRAWING No.	CHK'D		
400458	DATE	3-7-85	11-12-85
	ECO	1958	2072
	REVISION	4·0	4·1
	ISSUE		

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE · REVISION	
COMP LAYOUT.	480458	1	4·0	4·1

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APP'D	TITLE	DRAWING No.
B.JACKSON	MJD		4200	400458
DATE 3-7-85	DATE 9.7.85	DATE 23.7.85	LF TRANSFORMER ASSY	SHEET 1 OF 3

400458.

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	300025-2	L.F TRANSFORMER	SIGA		1
	450402-2	4200 LF. TX MTG. PLATE			1
	450405-1	4200 LF. TX PLATE SUPPT. BAR.			2
	450408-1	4200 CONN. MTG. BRKT.			1
	510000	WIRE 7/·2 BLACK PVC INS.			A/R
	510111	WIRE 7/·2 BROWN PVC INS.			A/R
	510220	WIRE 7/·2 RD/BK PVC INS.			A/R
	510330	WIRE 7/·2 OE/BK PVC INS.			A/R
	510333	WIRE 7/·2 ORANGE PVC INS.			A/R
	510444	WIRE 7/·2 YELLOW PVC INS.			A/R
	510555	WIRE 7/·2 GREEN PVC INS.			A/R
	510888	WIRE 7/·2 GREY PVC INS			A/R
	510999	WIRE 7/·2 WHITE PVC INS.			A/R
	560012	1 CORE 1/0·64 CO-AX			A/R
	590003	SLEEVE HEATSHRINK Ø6·4	RS OR HELLERMANN ELECTRIC	399-524 OR LVR64	A/R
	590006	SLEEVE HEATSHRINK Ø2·4	RS OR HELLERMANN ELECTRIC	399-495 OR LVR24	A/R
	590032	SLEEVE HEATSHRINK Ø4·8			A/R
	510222	WIRE 7/·2 RED PVC INS.			A/R
	605051	4WAY 0·1" HOUSING	MOLEX	22-01-2045	1
	605052	8WAY 0·1" HOUSING	MOLEX	22-01-2085	1

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4
ECO	-	1994	1030	1031
DATE	22-2-84	8-3-84	9-5-84	31-7-84
CHKD	MD	MD	MD	MD

DATE	datron ELECTRONICS LTD
22nd Feb 84	
DRAWN B. JACKSON	TITLE 4200
CHECKED MJD	LF. TRANSFORMER ASSY
APPROVED D Thomas	
DATE 8.3.84	DRAWING NUMBER 400458 SHEET 2 OF 3

400458.

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	G05057	CRIMP TERMINAL GD PL	MOLEX	4089-GL	4
	G05116-2	32+32WAY PCB EDGE SKT.		SEE DRG. A4.	1
	G11007	M3x6mm POZI-CSK STEEL	ZN PL		7
	G11016	M3x8mm POZI-PAN STEEL	ZN PL		3
	G11069	M5x8mm HEX HEAD STEEL	ZN PL		2
	G13005	M3 INTERNAL SHAKE PROOF			4
	G13007	M3 WASHER STEEL	ZN PL		1
	G13009	4BA SOLDER TAG BRASS	TIN PL		1
	G13028	M5 INTERNAL SHAKE PROOF			2
	G15002	M3 FULL NUT STEEL	ZN PL		1
	G30004	P'CLIP Ø 6·4mm	SES	CNG	1
	G30170	PCB GUIDE	RICHCO	RCG2	2
	900009	LOCKING COMPOUND	LOCTITE	222	AIR

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 22nd Feb 84
DRAWN B. JACKSON
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE '4200' L.F. TRANSFORMER ASSY

DRAWING NUMBER 400458 SHEET 3 OF 3

DRAWING No.	CHK'D		
400578	DATE	3-7-85	19-7-85
	ECO	1958	1953
	REVISION	4·0	4·1
	ISSUE	4·0	4·1

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION
COMP LAYOUT	480578	1	4·0 / 4·1
FONCTIONAL TEST PROC.	460578/FT	1	4·0
FUNCT. TEST TICK LIST	470578/FT	1	4·0

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD	TITLE	DRAWING No.
B. JACKSON	MJD		4200. HF. TX ASSY	400578
DATE 3-7-85	DATE 9.7.85.	DATE		SHEET 1 OF 3

400578

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R1	008042	GRB 5% 9W WIREWOUND	WELWYN	W23	1
	300026-2	HF TRANSFORMER	SIGA	SEE DRG.	1
	410256-6	HF TX MOUNTING PCB.			1
	512222	7/0·2 PTFE INSUL. WIRE	RED.		0·35M
	512666	7/0·2 PTFE INSUL. WIRE	BLUE.		0·35M
	512000	7/0·2 PTFE INSUL. WIRE	BLACK.		0·26M
	512111	7/0·2 PTFE INSUL. WIRE	BROWN.		0·31M
	512444	7/0·2 PTFE INSUL. WIRE	YELLOW.		0·25M
	512999	7/0·2 PTFE INSUL. WIRE	WHITE.		0·21M
	590001	SLEEVING H15x20 BLACK.			2
	590005	SLEEVING H20x20 BLACK.			3
	590063	295mm CABLE TIE.	PANDUIT	PLT 3I	1
	605051	4WAY 0·1" HOUSING	MOLEX	22-01-2045	1
	605053	12WAY 0·1" HOUSING	MOLEX	22-01-2125	1
	605057	CRIMP TERMINAL GD. PL	MOLEX	4809-GL	6
	611055	M4x40mm SLOT-PAN BRASS	Ni PL		1
	612029-1	M3x12mm STANDOFF	HARWIN	SEE DRG 612***.	4

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4
ECO	RELEASED	1767	1828	1934
DATE	28SEP84	15NOV84	25 JAN 85	4-6-85
CHKD	MD	MD	MD	MD

DATE	datron ELECTRONICS LTD
26 APR 84	
DRAWN B JACKSON	TITLE 4200 HF TRANSFORMER ASSY
CHECKED MJD	
APPROVED	
DATE 28.9.84	DRAWING NUMBER 400578 SHEET 2 OF 3

400578

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	613020	M4 WASHER STEEL.	ZN. PL		2
	613021	M4 INT. SHAKEPROOF.			1
	615011	M4 FULL NUT STEEL	ZN PL		1
	630024	STEATITE BEAD 16SWG	PARK ROYAL PORCELAIN	N°2	2

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

RS													
ECO													
DATE													
CHKD													

DATE 26-4-84
DRAWN B. JACKSON
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE '4200'
HF TRANSFORMER ASSY

DRAWING NUMBER 400578

SHEET 3 OF 3

DRAWING No. 400532

| | CHK'D | | |

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R24	001822	8k2 5% ½W CARBON	MULLARD	CR37	—
R25	063205	2M POT ⅜ SQ CERMET	BECKMAN	72P	1
R26	000104	100k 5% ⅓W CARBON	MULLARD	CR25	1
R27	000103	10k 5% ⅓W CARBON	MULLARD	CR25	46
R28	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R29	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R30	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R31	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R32	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R33	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R34	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R35	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R36	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R37	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R38	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R39	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R40	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R41	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R42	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R43	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R44	000473	47k 5% ⅓W CARBON	MULLARD	CR25	8
R45	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R46	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 12.3.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 MOTHER PCB ASSY

DRAWING NUMBER 400532 SHEET 3 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
R47	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R48	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R49	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R50	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R51	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R52	000101	100R 5% ⅓W CARBON	MULLARD	CR25	1
R53	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R54	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R55	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R56	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R57	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R58	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R59	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R60	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R61	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R62	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R63	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R64	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R65	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R66	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R67	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R68	000103	10k 5% ⅓W CARBON	MULLARD	CR25	—
R69	000473	47k 5% ⅓W CARBON	MULLARD	CR25	—

NOTES

SEE SHEET 2 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 12 3.84
DRAWN
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 MOTHER PCB ASSY

DRAWING NUMBER 400532 SHEET 4 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
R70	000473	47k 5% 1/3W CARBON	MULLARD	CR25	—
R71	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R72	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R73	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R74	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R75	000473	47k 5% 1/3W CARBON	MULLARD	CR25	—
R76	000473	47k 5% 1/3W CARBON	MULLARD	CR25	—
R77	000473	47k 5% 1/3W CARBON	MULLARD	CR25	—
R78	000473	47k 5% 1/3W CARBON	MULLARD	CR25	—
R79	000473	47k 5% 1/3W CARBON	MULLARD	CR25	—
R80	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R81	000103	10k 5% 1/3W CARBON	MULLARD	CR25	—
R82		NOT USED			—
R83		NOT USED			—
AN1	090090	47k x8 2% NETWORK	AB	761-3-47k	6
AN2	090095	47k x4 2% NETWORK	BECKMAN	L08-3-R47k	3
AN3	090090	47k x8 2% NETWORK	AB	761-3-47k	—
AN4	090095	47k x4 2% NETWORK	BECKMAN	L08-3-R47k	—
AN5	090095	47k x4 2% NETWORK	BECKMAN	L08-3-R47k	—
AN6	090090	47k x8 2% NETWORK	AB	761-3-47k	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

YSE													
ECO													
DATE													
CHKD													

DATE 12.3.84 | datron ELECTRONICS LTD

DRAWN IL | TITLE 4200 MOTHER PCB ASSY

CHECKED | APPROVED | DATE

DRAWING NUMBER 400532 | SHEET 5 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
AN7	090090	47k x8 2% NETWORK	AB	761-3-47k	—
AN8	090090	47k x8 2% NETWORK	AB	761-3-47k	—
AN9	090090	47k x8 2% NETWORK	AB	761-3-47k	—
AN10	090085	12k x8 2% NETWORK	AB	761-3-12k	4
AN11	090085	12k x8 2% NETWORK	AB	761-3-12k	—
AN12	090085	12k x8 2% NETWORK	AB	761-3-12k	—
AN13	090085	12k x8 2% NETWORK	AB	761-3-12k	—
C1		NOT USED			—
C2	180050	150μF 385V AL. ELECT	MULLARD	052-58151	4
C3	180050	150μF 385V AL. ELECT	MULLARD	052-58151	—
C4	180050	150μF 385V AL. ELECT	MULLARD	052-58151	—
C5	180050	150μF 385V AL. ELECT	MULLARD	052-58151	—
C6	104023	2n2F 20% 1kV CER DISC	ITT	HD16	2
C7	104023	2n2F 20% 1kV CER DISC	ITT	HD16	—
C8	180049	330μF 100V AL. ELECT	ECC	SMVB	2
C9	180049	330μF 100V AL. ELECT	ECC	SMVB	—
C10	110013	100nF 20% 250V POLYESTER	MULLARD	C280AE P100k	2
C11	110013	100nF 20% 250V POLYESTER	MULLARD	C280AE P100k	—

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

YSE													
ECO													
DATE													
CHKD													

DATE 12.3.84 | datron ELECTRONICS LTD

DRAWN IL | TITLE 4200 MOTHER PCB ASSY

CHECKED | APPROVED | DATE

DRAWING NUMBER 400532 | SHEET 6 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
C12	104032	220pF 10% 2kV CER DISC	ITT	HD09	1
C13	102102	1nF 10% 500V CER DISC	ITT	CD10	3
C14	102102	1nF 10% 500V CER DISC	ITT	CD10	–
C15	102102	1nF 10% 500V CER DISC	ITT	CD10	–
CN1	104033	1nF x7 20% 50V CAP NWK	SPRAGUE	470C7X7R102M5DG	2
CN2	104033	1nF x7 20% 50V CAP NWK	SPRAGUE	470C7X7R102M5DG	–
D1	200002	1A 50V GP Si DIODE	FAIRCHILD	IN4001	2
D2	200002	1A 50V GP Si DIODE	FAIRCHILD	IN 4001	–
D3	200024	3A 1k3V GP Si DIODE	MOTOROLA	BY255	8
D4	200024	3A 1k3V GP Si DIODE	MOTOROLA	BY255	–
D5	200024	3A 1k3V GP Si DIODE	MOTOROLA	BY255	–
D6	200024	3A 1k3V GP Si DIODE	MOTOROLA	BY255	–
D7-D10	200024	3A 1k3V GP Si DIODE	MOTOROLA	BY255	–

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.													
E.C.O.													
DATE													
CHKD													

DATE 12.3.84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 MOTHER PCB ASSY

DRAWING NUMBER 400532

SHEET 7 OF 8

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
W1	209014	1A5 400V BRIDGE RECT	MICRO-ELECTRONICS	W004	1
RL1	330031	RELAY 2P N/O 2P N/C	SDS	S2-24V	1
L1	370024-A	COMMON MODE CHOKE SW	SIGA	SEE DRG	1
L2	370014	8μH 3A RF CHOKE	ERO	F1756-008-301	2
L3	370014	8μH 3A RF CHOKE	ERO	F1756-008-301	–
L4	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	2
L5	370001	10μH 0·85Ω RF CHOKE	PLESSEY	58/10/0011/10	–
J4, J5, J7, J8, J9	605090-2	6+6 WAY PCB EDGE SKT	SEE DRG		8
	410259-5	PCB			1
	512999	7/·2 WHITE PTFE INS 1kV rms		TO BSG210 TYPE C	A/R
	560002	7/34 AWG CU. COV. STEEL CO-AX			A/R
	590031	HEATSHRINK SLEEVE ϕ3·2			A/R
J19, J31, J32, J33	604042	4 WAY ·156" PLUG GD PL	MOLEX	09-72-2041	6
J2, J3, J4, J6, J7	605087-2	24+24 WAY PCB EDGE SKT	SEE DRG		13
J3, J5, J8, J9	605088-2	18+18 WAY PCB EDGE SKT	SEE DRG		6
J4, J6, J7, J8, J9	605089-2	12+12 WAY PCB EDGE SKT	SEE DRG		6
J5, J7, J8, J9	605091-2	6+6 WAY PCB EDGE SKT	SEE DRG		9
J7, J8, J9 J2	605092-2	3+3 WAY PCB EDGE SKT	SEE DRG		6
J30	605114-2	12+12 WAY PCB EDGE SKT	SEE DRG		1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.													
E.C.O.													
DATE													
CHKD													

DATE 12.3.84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 MOTHER PCB ASSY

DRAWING NUMBER 400532

SHEET 8 OF 9

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	612004-1	M3 × 4mm STANDOFF	DATRON	SEE DRG	13
	612027-1	M3 × 8mm STANDOFF	DATRON	SEE DRG	9
	617010	NYLATCH PLUNGER 3/16"	HARTWELL CORP	HN3P-32-4-1	20
	617011	NYLATCH GROMMET 3/16"	HARTWELL CORP	HN3G-32-1	20
J26	620005	CLOVERLEAF PTFE INSUL.	SEALECTRO	FTE1SP59	5
	620006	SOLDER TURRET	HARWIN	H9001-01	62
	620007	TEST POINT TERMINAL	MICROVAR	TYPE C30	9
	630036	STEATITE BEAD 18 SWG	PARK ROYAL PORCELAIN	No 1	4
F1	920116	FUSE 1A 250V 20mm SLO-B	BELLING LEE	L2080A/1	2
F2	920116	FUSE 1A 250V 20mm SLO-B	BELLING LEE	L2080A/1	—
F3	920125	FUSE 2·5A 125V 7mm	LITTLE FUSE	275 02.5	2
F4	920125	FUSE 2·5A 125V 7mm	LITTLEFUSE	275 025	—
	920126	FUSE HOLDER 20mm PCB	BELLING LEE	LI426	2
J1	605111	24 + 24 WAY ·1" PCB SKT	AMP	2-141592-4	3
	612024-1	M3 X 12·7mm STANDOFF	DATRON	SEE DRG	1
	540002	22 SWG TINNED CU. WIRE			A/R
	590004	SLEEVING 1·0mm PTFE		FE10	A/R
	630024	STEATITE BEAD 16 SWG	PARK ROYAL PORCELAIN	No 2 (LARGE)	4
	602018	EYELET Ø1·6	PACE INC.	1347-0047	8
	512000	7/0·2 PTFE INSULATED BLACK	WIRE.		A/R
	512111	7/0·2 PTFE INSULATED BROWN	WIRE.		A/R
	512222	7/0·2 PTFE INSULATED RED	WIRE.		A/R

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS.													
E.C.O.													
DATE													
CHKD													

DATE 12. 3. 84

DRAWN IL

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE 4200 MOTHER PCB ASSY

DRAWING NUMBER 400532

SHEET 9 OF 9

| DRAWING No. 400439 | CHK'D | MJD | MJD | | |

| DRAWING No. 400634. | CHK'D | | |

400634

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	920122-3	TERMINAL BLACK	DATRON	SEE DRAWING A4	1
	920123-3	TERMINAL RED/BLK	DATRON	SEE DRAWING A4	1
	920134-3	TERMINAL BRN/BLK	DATRON	SEE DRAWING A4	1
	920135-3	TERMINAL BLU/BLK	DATRON	SEE DRAWING A4	1
	920136-3	TERMINAL WHT/BLK	DATRON	SEE DRAWING A4	1
	920137-3	TERMINAL GRN/BLK	DATRON	SEE DRAWING A4	1
	G13009	M3 SOLDER TAG.			1
	G13021	M4 SHAKEPROOF WASHER.			12
	G13020.	M4 WASHER STEEL	ZN PL		6
	G13039	M2 SOLDER TAG.	ROSS COURTNEY	201002	1
	400184	EARTH BRAID ASSY	DATRON		1
	512999	7/0·2 PTFE INSUL. WHITE	WIRE		0·18M.
	521006	16/0·2 PVC INS. GRN/YLW	WIRE		A/R
	590001	SLEEVE ϕ3·0	HELLERMANN.	HIS x 20	7
	590006	HEATSHRINK SLEEVE	ϕ 2·4		A/R
	512444	7/0·2 PTFE INSUL. YELLOW	WIRE		0·14M
	512888.	7/0·2 PTFE INSUL. GREY.	WIRE.		0·14M
	590003.	HEATSHRINK SLEEVE ϕ	6·4		A/R
	590017	HEATSHRINK CABLE MARKER			1
	590018	HEATSHRINK CABLE MARKER			1

NOTES.

SEE SHEET 2 FOR LATEST ISSUE

ISS													
E C O													
DATE													
CHKD													

DATE 19.9.85

DRAWN JB.

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE TERMINAL BOARD ASSEMBLY.

DRAWING NUMBER 400634

SHEET 3 OF 3

DRAWING No. 400529.		CHK'D	MJD	MJD	MJD	MJD	MJD	MJD	MJD	MJD	MJD	MJD
		DATE	2.7.85	18.1.85	15.1185	2.12.85	2.12.85	4.12.85	19.12.85	13.1.86	13.1.86	28.1.86
		ECO	1958	1946	1980	1081	2017	2080	2049	2090	2103	2109
		REVISION	4.0	4.1	5.0	5.1	5.2	5.3	5.4	6.0	6.1	6.1
		ISSUE										

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION									
COMPONENT LAYOUT.	480529	1	4.0			5.0				6.0		
COMPONENT LAYOUT	480529	2	4.0			5.0				6.0	6.1	
COMPONENT LAYOUT	480529	3	4.0			5.0				6.0		
COMPONENT LAYOUT	480529	4	4.0			5.0				6.0	6.1	
ELEC. INSP. TEST PROC.	460529/EI	1-3	4.0			5.0				6.0		
INST. TEST PROC.	460529/IT	1-13	4.0	4.1		5.0				6.0		
INST. CAL. TEST PROC.	460529/IC	1-6	4.0			5.0	5.1			6.0		
STD. CAL TEST PROC.	460529/SC	1-8	4.0			5.0				6.0		
INST. TEST TICK LIST.	470529/IT	1-2	4.0	4.1		5.0		5.1		6.0	6.1	

NOTES: ☐ INDICATES NO CHANGE TO DOCS AT ISSUE LEVEL CHANGE.

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD	TITLE	DRAWING No.
B. JACKSON	MJD		4200 MAIN ASSEMBLY	400529.
DATE 2nd JUL 85.	DATE 9.7.85	DATE 23.7.85		SHEET 1 OF 4

400529.

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	400446-8	4200 SINE SOURCE PCB ASSY.			1
	400447-14	4200 A.C. PCB ASSY.			1
	400450-10	4200 POWER AMP PCB ASSY.			1
	400530-8	4200 CHASSIS ASSY.			1
	400534-9	4200 DIGITAL PCB ASSY.			1
	400535-5	4200 REFERENCE DIVIDER PCB ASSY.			1
	400544-4	4200 38V PSU. PCB ASSY.			1
	400550-7	4200 OUTPUT CONTROL PCB ASSY.			1
	400554-4	4200 POWER SUPPLY PCB ASSY (IN GUARD).			1
	400561-1	4200 POWER SUPPLY PCB ASSY (OUT GUARD).			1
	400565-4	4200 HIGH VOLTAGE PCB ASSY.			1
	400570-1	4200 ANALOGUE INTERFACE PCB ASSY.			1
	410288-1	I/Ω LINK PCB.			1
	420093-3	RATING LABEL.			1
	420098	SERIAL/MOD STATUS LABEL	RS	554-793	1
	450231-4	CARD SUPPORT BRACKET			2
	450233/J-1	4200 INSTRUCTION CARD			1
	450273-2	TOP COVER			1
	450274-2	BOTTOM COVER			1
	450307-2	PACKING BOX			1

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1
ECO	RELEASED
DATE	28 SEP 84
CHKD	MD

DATE 18th MAY 84.
DRAWN B. JACKSON
CHECKED M.J.D.
APPROVED
DATE 28.9.84

datron ELECTRONICS LTD

TITLE 4200 MAIN ASSEMBLY.

DRAWING NUMBER 400529 SHEET 2 OF 4

400529.

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	450400-1	MOULDED FOOT			6
	510222	7/0·2 PVC INSULATED RED WIRE			A/R
	590001	SLEEVE MAX. CABLE ϕ 3·0.	HELLERMANN ELECTRIC.	H15X20. BLK.	1
	590002	SLEEVE MAX. CABLE ϕ 6·0	" "	H30X25. BLK.	1
	G11076	M3X6mm SLOT PAN STEEL	ZN PL		12
	G11005	M3X12mm POZIPAN STEEL	ZN PL		13
	G11007	M3X6mm POZI-CSK STEEL	ZN PL		9
	G11016	M3X8mm POZI PAN STEEL	ZN PL		8
	G11038	M4X12mm SKT CSK HTS.	CHEM. BLK.		16
	G11058	M4X8mm POZI-CSK STEEL	ZN PL		20
	G13005	M3 INT SHAKEPROOF	ZN PL		21
	G13007	M3 WASHER STEEL	ZN PL		8

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 18th MAY 84.
DRAWN B. JACKSON
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE '4200' MAIN ASSEMBLY

DRAWING NUMBER 400529 SHEET 3 OF 4

400529.

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy
	G30122	P.C.B. EJECTOR BLUE	RICHCO	CBE	1
	G30109	2·5mm A/F HEXAGON KEY	UNBRAKO	2·5mm A/F	1
	G30163	POLYTHENE BAG GUSSETTED	ABBOTTS	18"X28"X42". 500g	1
	850051-1	4200 USERS HANDBOOK	DATRON		1
	850056-1	CAL & SERV. HANDBOOK	DATRON		1
	850507-1	4200 IEEE CARD.	DATRON		1
	900016	CLEANING FLUID	RS	556-654	A/R
	920012	MAINS LEAD UK.	BELLING LEE	L1949A/2M/BLACK	1
	920038	FUSE 3A 250V 1¼" SLO-B	LITTELFUSE	313003	1
	920101	BATTERY LITHIUM AA	TADIRAN	TL 2100 SOLDER TAGS.	1

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 18th MAY 84.
DRAWN B. JACKSON
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE '4200' MAIN ASSEMBLY

DRAWING NUMBER 400529 SHEET 4 OF 4

DRAWING No. 400530

	CHK'D	DATE	ECO	REVISION	ISSUE
		3-7-85	1958	7-0	
		29-7-85	1962	7-1	
		11.10.85	1980	8.0	
		30.10.85	2039	8.1	
		7.11.85	2051	8.2	
		8.11.85	2040	8.3	
		10.12.85	2061	8.4	
		21.1.86	2086	8.5	
		12.2.86	2147	8.6	
		12.2.86	2143	8.7	
		12.2.86	2136	8.7	

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION
COMP. LAYOUT	480530	1	7-0, 8.0, 8.1
COMP. LAYOUT	480530	2	7-0, 8.0, 8.1
COMP. LAYOUT.	480530	3	7-0, 7-1, 8.0, 8.1, 8.2
COMP. LAYOUT.	480530	4	7-0, 8.0, 8.1, 8.2, 8.3
COMP. LAYOUT.	480530	5	7-0, 8.0, 8.1, 8.2
COMP. LAYOUT.	480530	6	7-0, 8.0
COMP. LAYOUT	480530	7	7-0, 8.0
SCHEMATIC	430530	1	7-0, 8.0, 8.1, 8.2, 8.3, 8.4
SCHEMATIC	430530	2	7-0, 8.0, 8.1, 8.3

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD	TITLE	DRAWING No.
B. JACKSON	MJD		4200 CHASSIS ASSY.	400530
DATE 3-7-85	DATE 9.7.85	DATE		SHEET 1 OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	400458-4	4200 LF TX ASSY			1
	400462-4	MAINS SWITCH CABLE ASSY			1
	400463-2	DIGITAL PSU CABLE ASSY			1
	450542-1	MADE IN ENGLAND BADGE.			1
	400471-1	RIBBON CABLE ASSY			2
	400531-5	4200 REAR PANEL ASSY			1
	400532-8	4200 MOTHER PCB ASSY			1
	400533-3	4200 FRONT PCB ASSY			1
	400538-9	4200 PA (POS) HS ASSY			1
	400539-7	4200 PA (NEG) HS ASSY			1
	400540-6	4200 PSU/I HS ASSY			1
	400541-4	4200 MAINS TX ASSY			1
	400560-1	4200 IN/GU. PSU. CABLE ASSY.			1
	450467-1	FOAM GASKET.			1
	450265-3	MOULDED CHASSIS			1
	450267-3	4200 FRONT PANEL			1
	400578-4	HF TRANSFORMER ASSY.			1
	450271-1	FILTER GRILLE			1
	450272-1	TX BOLT PLATE			2
	450277-1	FOAM FILTER			1
	450280-1	HANDLE			2
	450477-1	GUARD/EARTH SPACER WASHER.			1
	450293-1	PCB SUPPORT.			3

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS	1	2	3	4	5	6	7
ECO	RELEASED	1721	1771	1834	1893, 1861	1880, 1882	1918
DATE	28-9-84	9-10-84	11-12-84	29-1-85	15-3-85	29-3-85	13-5-85
CHKD			NO	NP	NP	NP	

DATE	datron ELECTRONICS LTD
7th MAR 84	
DRAWN B. JACKSON	TITLE 4200 CHASSIS ASSEMBLY
CHECKED	
APPROVED	DRAWING NUMBER 400530
DATE 28.9.84	SHEET 2 OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	450300-1	REAR SPACER			2
	450301-2	EARTH BRACKET			1
	450305/A-3	4200 OVERLAY			1
	450310-1	SIDE EXTRUSION R.H.			1
	450311-1	SIDE EXTRUSION L.H.			1
	450316-1	P.S. GUARD SCREEN			1
	450452-3	CABLE BRIDGE			1
	450367-1	POLAROID			2
	450406-1	40V PSU BRACKET			1
	450414-2	EARTH SHEET			2
	450415-2	GUARD SHEET			2
	450418-1	M5 BOLT SPACER			4
	450430-1	4200 HEATSINK RETAINER			1
	450431-1	4200 HEATSINK GU.SCREEN.			1
	450436-1	TRANSFORMER BOLT PLATE			2
	450446-1	PCB GUARD SCREEN			6
	450447-1	PCB EARTH SCREEN			1
	512999	7/0·2 PTFE INSUL. WIRE.	WHITE		0·2 M
	510999	7/0·2 PVC INSUL. WIRE.	WHITE.		A/R
	521006	16/0·2 PVC INSUL. WIRE.	GREEN / YELLOW		A/R
	400634-1	TERMINAL PCB ASSY.			1
	590006	SLEEVE HEATSHRINK Ø 2·4			A/R
	590013	STD CABLE TIE 3·6x140mm			2

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE	7th MAR 84
DRAWN	B. JACKSON.
CHECKED	
APPROVED	
DATE	

datron ELECTRONICS LTD

TITLE '4200' CHASSIS ASSEMBLY

DRAWING NUMBER 400530 | SHEET 3 OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	590002	SLEEVE MAX CABLE Ø 6.0	HELLERMANN ELECTRIC	H30 x 25	6
	590003	SLEEVE HEATSHRINK Ø6·4			A/R
	606005	DIL SOCKET CLIP 16 W	CA	CA16 · 200 · DL	2
	611004	M3x6mm POZI-PAN STEEL	ZN PL		35
	611008	M3x10mm POZI-CSK STEEL	ZN PL		4
	611012	M3x12mm POZI-CSK STEEL	ZN PL		6
	611015	M3x8mm POZI-CSK STEEL	ZN PL		2
	611016	M3x8mm POZI-PAN STEEL	ZN PL		21
	611023	M2·5x10mm POZI-PAN STEEL	ZN PL		2
	611038	M4x12mm SKT.CSK HTS.	CHEM. BLK.		6
	611047	M5x12mm POZI-CSK STEEL	ZN PL		8
	611078	M4x12mm TAPTITE POZI-CSK	STEEL ZN PL BLACK CONV.	LANDLIN DIP	8
	611051	M8x110mm HEX STEEL	ZN PL		4
	611045	M5x65mm POZI-PAN STEEL	ZN PL		4
	611054	M2x6mm SLOT CSK STEEL	ZN PL.		1
	611006	M3x10mm POZI-PAN STEEL	ZN PL.		1
	613005	M3 INT SHAKEPROOF			30
	613007	M3 WASHER STEEL	ZN PL		7
	613009	4BA SOLDER TAG BRASS	TIN PL		3
	613012	M2·5 WASHER STEEL	ZN PL		4
	613013	M5 WASHER STEEL	ZN PL		4
	613014	M2·5 INT SHAKEPROOF			2

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE	7th MAR 84
DRAWN	B. JACKSON.
CHECKED	
APPROVED	
DATE	

datron ELECTRONICS LTD

TITLE '4200' CHASSIS ASSEMBLY

DRAWING NUMBER 400530 | SHEET 4 OF 5

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Assy.
	G13025	M8 WASHER STEEL	ZN PL		4
	G13028	M5 INT SHAKEPROOF			4
	G13029	M3 CRINKLE WASHER	S.S.		30
	G13038-1	M5 LARGE WASHER.		SEE DRG. A4.	2
	G13021	M4 INT. SHAKEPROOF			6
	G15002	M3 FULL NUT STEEL	ZN PL		4
	G15007	M5 FULL NUT STEEL	ZN PL		4
	G15012	M5 NYLOCK NUT STEEL	ZN PL		4
	G15015	M8 NYLOCK NUT STEEL	ZN PL		4
	G17013	ø 2·4 POP RIVET DOMED HD.	GEORGE TUCKER EYELET.	TAP/D/33/BH	2
	G13027	M2 INT SHAKEPROOF			1
	G30003	'P' CLIP ø 4·8mm	SES	CNS	3
	G30004	'P' CLIP ø 6·4mm	SES	CNG	4
	G30020	CABLE CLIP ø 4mm	3M	708	2
	G30029	TAPE DOUBLE SIDED 1/4" x 1/32"	3M	4032	A/R
	G15016	M2 FULL NUT			1
	G30167	FOAM TAPE 6mmT x 9mmW	TESA	TESAMOLL 761/4763	A/R
	G30168	POLYESTER TAPE 50mm WIDE	3M	683	A/R
	G30175	PCB GUIDE	RICHCO	RCG1	2
	900009	LOCKING COMPOUND.	LOCTITE	220	A/R.

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

ISS													
ECO													
DATE													
CHKD													

DATE 7th MAR 84

DRAWN B.JACKSON

CHECKED

APPROVED

DATE

datron ELECTRONICS LTD

TITLE '4200' CHASSIS ASSEMBLY

DRAWING NUMBER 400530

SHEET 5 OF 5

DRAWING No. 400603	CHK'D	MJD
	DATE	11-7-85
	ECO	1958
	REVISION	
	ISSUE	3·0

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE - REVISION
COMP LAYOUT.	480603	1	3·0
COMP LAYOUT.	480603	2	3·0
COMP. LAYOUT	480603	3	3·0
COMP. LAYOUT	480603	4	3·0

NOTES

datron INSTRUMENTS NORWICH ENGLAND

DRN	CHK'D	APPD	TITLE	DRAWING No
B. JACKSON	MJD		4200 OPTIONS.	400603
DATE 11. JULY 85.	DATE 26.7.85	DATE		SHEET 1 OF 2

400603.

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No. USED Per Assy
OPTION 30	400555-8	CURRENT PCB ASSY	DATRON.		A/R
OPTION 90.	440094-1	RACK MOUNTING KIT.	DATRON.		A/R
OPTION 42.	440117-3	REAR OUTPUT KIT.	DATRON.		A/R
OPTION 80.	440096-1	115V 60Hz KIT	DATRON.		A/R

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

=	3·0
ECO	1958
DATE	11-7-85
CHKD	

DATE 11th JULY 85.
DRAWN B JACKSON
CHECKED MJD
APPROVED
DATE

datron INSTRUMENTS LTD

TITLE 4200 OPTIONS.

DRAWING NUMBER 400603 SHEET 2 OF 2

DRAWING NO 400531

	CHK'D	DATE	ECO	REVISION	ISSUE
		3-7-85	1958	3-0	
		6-12-85	2061	4-0	
		6-1-86	2108	4-1	
		20-1-86	2086	5-0	

DESCRIPTION	DRAWING NUMBER	SHEET NUMBER	ISSUE + REVISION		
			3-0	4-0	5-0
COMP LAYOUT	480531	1			

NOTES

datron — NORWICH ENGLAND

DRN	CHK'D	APP'D
B JACKSON	MJD	
DATE 3-7-85	DATE 9.7.85	DATE 23.7.85

TITLE 4200 REAR PANEL ASSY

DRAWING No 400531 SHEET 1 OF 4

DESIGNATOR	DATRON PART No.	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No.	No. USED Per Ass.
	400184-2	TAG + BRAID ASSY.			1
	400439-3	INTERCONNECTION PCB. ASS			1
	450268-6	REAR PANEL			1
	450309-2	IEEE MOUNTING SCREW			2
	510000	7/·2 PVC INSULATED (BLK) WIRE			115mm
	510111	7/·2 PVC INSULATED (BROWN)			115mm
	510222	7/·2 PVC INSULATED (RED)			115mm
	510333	7/·2 PVC INSULATED (ORANGE)			550mm
	530444	24/·2PVC INSULATED (YELLOW)			110mm
	530555	24/·2PVC INSULATED (GREEN)			130mm
	530666	24/·2PVC INSULATED (BLUE)			110mm
	530777	24/·2PVC INSULATED (VIOLET)			115mm
	530888	24/·2PVC INSULATED (GREY)			120mm
	510999	7/·2 PVC INSULATED (WHITE)			250mm
	590001	SLEEVE MAX. CABLE ⌀ 3·0	HELLERMANN ELECTRIC	H15 × 20 BLK. HELSYN	3
	590031	HEATSHRINK ⌀ 3·2 YELLOW			255mm
	590029	HEATSHRINK ⌀ 9·5 BLACK			40 mm
	604054	9 WAY PLASTIC 'D' PLUG	T+B ANSLEY	609-9P	1
J3, J4	605051	4 WAY POLARISED SOCKET	MOLEX	22-01-2045	2
	590005	SLEEVE MAX. CABLE ⌀ 4·0	HELLER MANN ELECTRIC	H20x 20 BLK HELSYN	6
	605057	CRIMP TERMINAL	MOLEX	4809-GL	5
J53	605095	9 WAY PLASTIC 'D' SOCKET	T+B ANSLEY	609-9S	1

NOTES.

SEE SHEET 1 FOR LATEST ISSUE

	1	2	3
ECO	RELEASED	1765	1911
DATE	10.2.84	15-11-84	16-5-85
CHK'D	TP	MJD	AP

DATE 7.9.84
DRAWN M.J.D.
CHK'D A.R. COGGAN
APPROVED
DATE 10.9.84

datron ELECTRONICS LTD

TITLE 4200 REAR PANEL ASSY.

DRAWING NUMBER 400531 SHEET 2 OF 4

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
	450018-2	BLANKING PLATE			1
	606011	9 WAY PLASTIC 'D' CONN. B/SHELL	T+B ANSLEY	609-09	1
	606013	PLASTIC 'D' CONN. JACKSCREW	T+B ANSLEY	609-004	1 PAIR
	606014	PLASTIC 'D' CONN. JACK SKT. ASS	T+B ANSLEY	609-006	1 PAIR
	613007	M3 FLAT STEEL WASHER. ZINC PLATED.			2
	611005	SCREW M3x12mm STEEL	POZI-PAN ZINC PLATED GKN		1
	611016	SCREW M3x8mm STEEL	" " " " GKN		4
	611017	SCREW M3x16mm STEEL	" " " " GKN		2
	611049	SCREW M4x20mm STEEL	" " " " GKN		4
	613005	WASHER M3 INT/SHAKEPROOF	STEEL ZINC PLATED GKN		7
	613009	SOLDER TAG 4BA			1
	613021	WASHER M4 INT/SHAKEPROOF	STEEL ZINC PLATED GKN		4
	615002	NUT M3 FULL HEX. STEEL	ZINC PLATED GKN		3
	615011	NUT M4 FULL HEX. STEEL	ZINC PLATED GKN		4
	700071	KEYSWITCH ACTIVATED ON/OFF	LORLIN	KMS 8004/DG751	1
	920150	FAN 115V 119mm BALL B.	REDPOINT	RCF 162/115	1
	920086	MAINS I/P MODULE	POTTER	7100-0002	1
	630133	HOLE PLUG ¼" BLACK	HEYCO	DP 250	6
	900009	LOCKING COMPOUND	LOCTITE	270	A/R
	920098	FUSE 3A. ANTISURGE	LITTLEFUSE	313003	1

NOTES

SEE SHEET 1 FOR LATEST ISSUE

ISS															
ECO															
DATE															
CHKD															

DATE 7.9.84
DRAWN M.J.D.
CHECKED
APPROVED
DATE 10.9.84

datron ELECTRONICS LTD

TITLE 4200 REAR PANEL ASSY.

DRAWING NUMBER 400531 | SHEET 3 OF 4

DESIGNATOR	DATRON PART No	DESCRIPTION	PRINCIPAL MANUFACTURER	MANUFACTURER'S PART No	No USED Per Assy
	530000	24/·2 PVC INSULATED (BLK)			100mm
	530111	24/·2 PVC INSULATED (BRN)			110mm
	530222	24/·2 PVC INSULATED (RED)			120mm
	530333	24/·2 PVC INSULATED (ORG)			120mm
	530999	24/·2 PVC INSULATED (WHT)			110mm
	605135	6 WAY. CHASSIS MNT. 0·093" SKT.	MOLEX	03-09-1061	2
	605136	0·093" MALE CRIMP TERM. GD.	MOLEX	02-09-6123.	5
	605137	0·093" FEMALE CRIMP TERM. GD.	MOLEX	02-09-5123.	5

NOTES

SEE SHEET 1 FOR LATEST ISSUE

ISS															
ECO															
DATE															
CHKD															

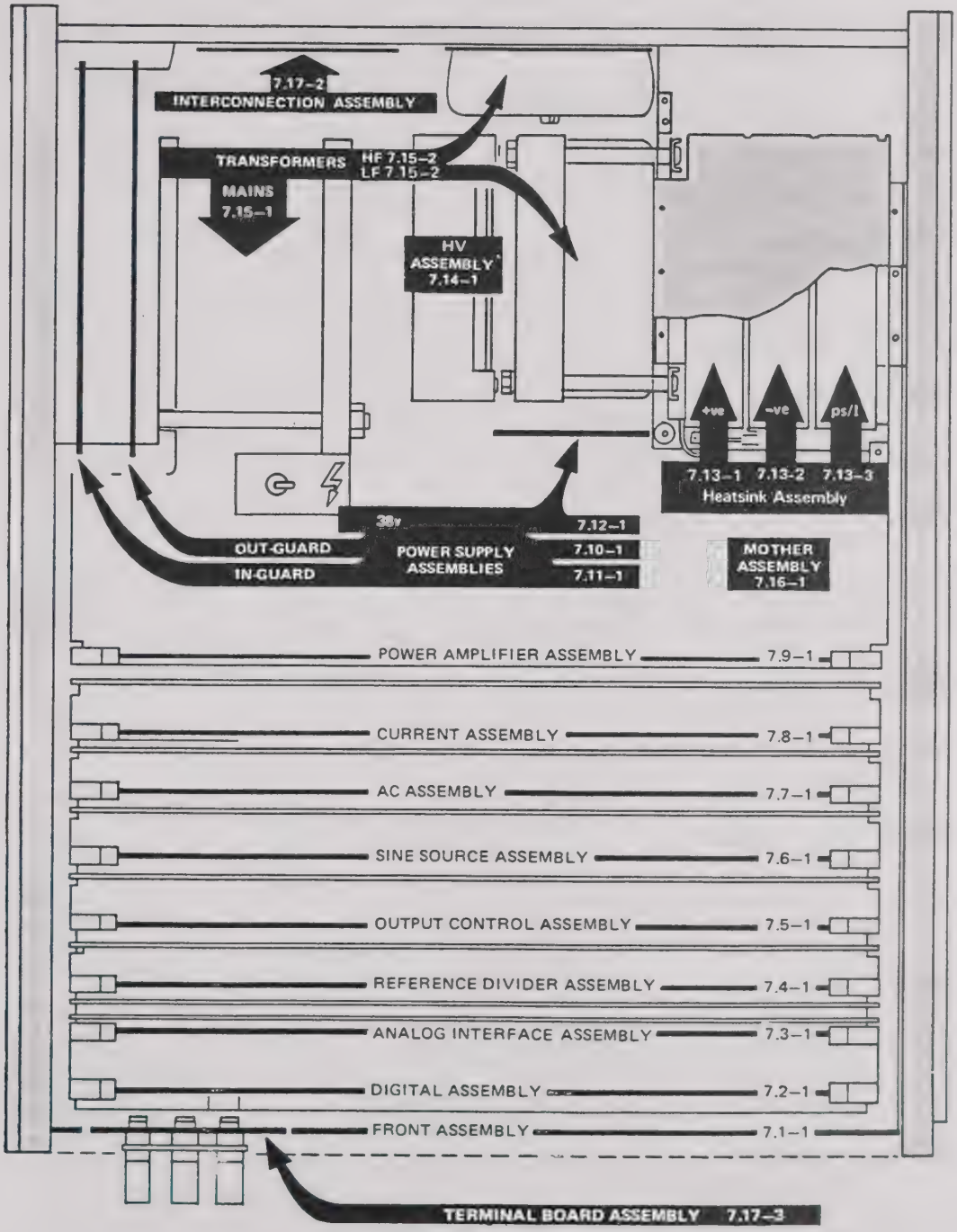
DATE 6th DEC 85.
DRAWN B.S. JACKSON
CHECKED
APPROVED
DATE

datron ELECTRONICS LTD

TITLE 4200 REAR PANEL ASSY.

DRAWING NUMBER 400531 | SHEET 4 OF 4

SECTION 7 SERVICING DIAGRAMS



ASSEMBLY LOCATIONS WITH PAGE INDEX

SECTION 7 CONTENTS

Page

FRONT ASSEMBLY
- Keyboard Encoder and LED Driver 7.1-1
- Display Driver High Voltage 7.1-2

DIGITAL ASSEMBLY
- Display Multiplexing Logic 7.2-1
- Microprocessor 7.2-2
- Memory and Battery Back-up 7.2-3
- IEEE 488 Interface 7.2-4
- I-C Power Supplies 7.2-5

ANALOG INTERFACE ASSEMBLY
- Lower Reference Divider Counter 7.3-1
- Upper Reference Divider Counter 7.3-2
- Master Clocks and Analog Control Serial Link 7.3-3
- Watchdog Driver and I-C Power Supplies 7.3-4

REFERENCE DIVIDER ASSEMBLY
- Most-Significant Switch and Filter 7.4-1
- Least-Significant Switch and Filter 7.4-2
- Summing Amplifier 7.4-3
- Serial/Parallel Data Converter 7.4-4
- Out/In Guard Interface and Watchdog 7.4-5
- Power Supplies 7.4-6

REFERENCE ASSEMBLY
- Reference Assembly 7.4-7

OUTPUT CONTROL ASSEMBLY
- Output Lines; Control; 1kv Overload Detector 7.5-1
- High Voltage Status and Overvoltage Detectors 7.5-2

SINE SOURCE ASSEMBLY
- Sine Oscillator 7.6-1
- Oscillator Amplitude-Detector and Reference 7.6-2
- VCA, 1V Buffer and Current Detector 7.6-3
- Digital Synthesizer 7.6-4
- Frequency Range Dividers, Control logic and Power Supplies 7.6-5

AC ASSEMBLY
- Switching Overview 7.7-1
- Sense Amplifier and Reference Inverter 7.7-2
- Quasi-Sine Generator and Timing Logic 7.7-3
- AC/DC Transfer Detector and Integrators 7.7-4
- Relay Drive Logic and Power Supplies 7.7-5
- Phase Detector & Integrator and Power Supplies 7.7-6

CURRENT ASSEMBLY
- Voltage-to-Current Converter 7.8-1
- Logic and Relay Drive 7.8-2

POWER AMPLIFIER ASSEMBLY
- Block Diagram 7.9-1
- 10V and 1kV Amplifiers 7.9-2
- 100V Amplifier 7.9-3
- Power Supply Monitors 7.9-4
- Logic and Relay Drives 7.9-5
- 100V Overload Detector and Power Supplies 7.9-6

Page

OUT-GUARD POWER SUPPLY ASSEMBLY
Main Digital Supply, Display Supply and Common Mode Null 7.10-1

IN-GUARD POWER SUPPLY ASSEMBLY
Common-2 Supplies and Current Option Supply 7.11-1
Reference Divider Common-4 and ±8V Common-2 Supplies 7.11-2

±38V POWER SUPPLY ASSEMBLY
±38V Power Supply with Mother-Assembly Components 7.12-1

HEATSINK ASSEMBLIES
Output Power Amplifier (Positive Half) 7.13-1
Output Power Amplifier (Negative Half) 7.13-2

PS/I HEATSINK ASSEMBLY
±400V(2)B Regulator Current Option Stage 7.13-3

HIGH VOLTAGE ASSEMBLY
High Voltage Switching and Logic 7.14-1

TRANSFORMER ASSEMBLIES
Mains (Line) Transformer 7.15-1
L.F. and H.F. Transformer Assemblies 7.15-2

MOTHER BOARD ASSEMBLY
Connector & Pin Index with each Layout Drawing
Sheet 1 . . . . . 7.16-1
Sheet 2 . . . . . 7.16-2
Sheet 3 . . . . . 7.16-3
Sheet 4 . . . . . 7.16-4
Sheet 5 . . . . . 7.16-5

INTERCONNECTIONS
Interconnections Sheets 1 and 2 . . . . . 7.17-1

INTERCONNECTION ASSEMBLY
Connections with Power Input Module and Mains Transformer 7.17-2

TERMINAL BOARD ASSEMBLY
Sheet 1 . . . . . 7.17-3

MAIN ASSEMBLY
Sheets 1 and 2 . . . . . 7.18-1
Sheets 3 and 4 . . . . . 7.18-2

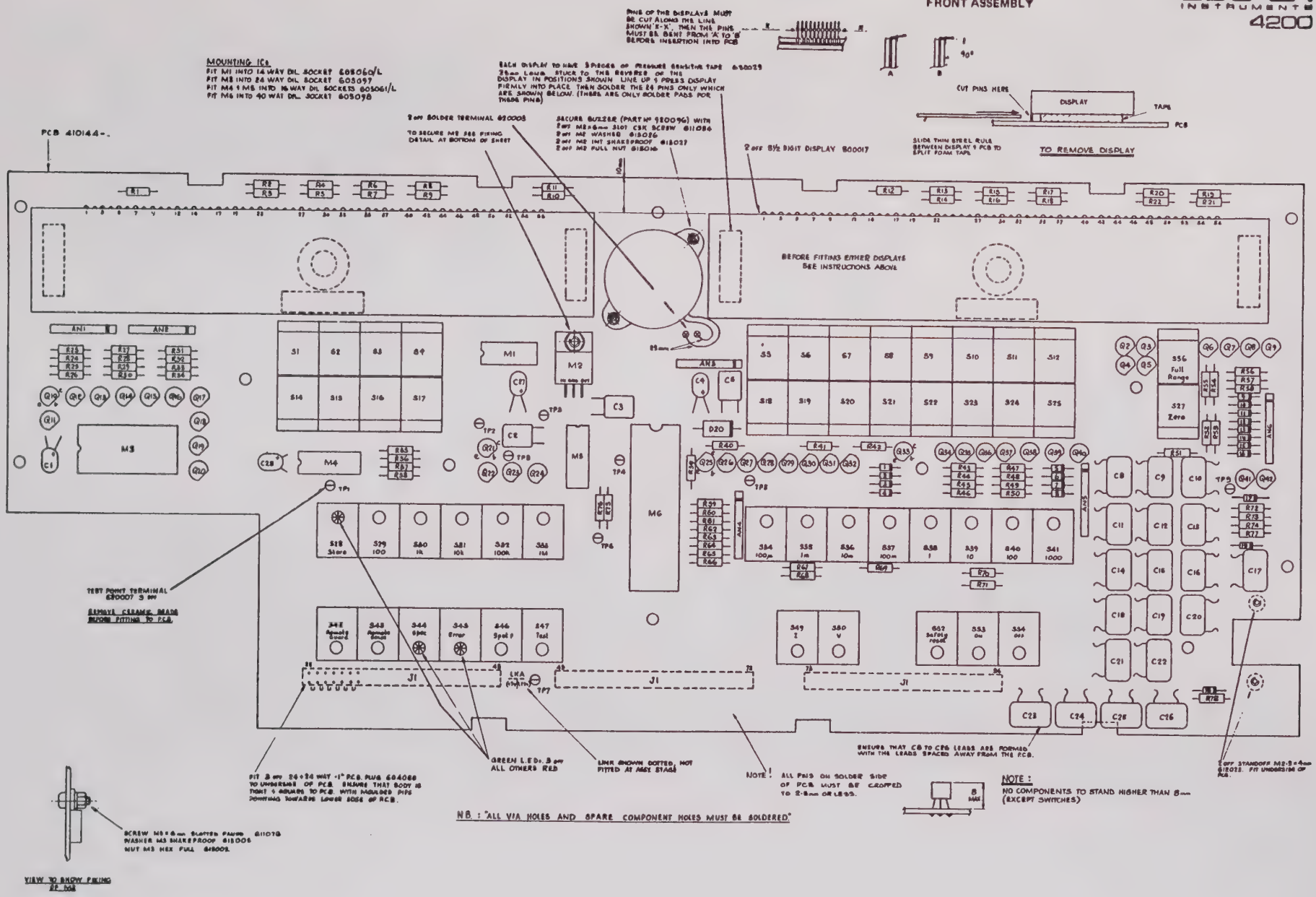
CHASSIS ASSEMBLY
Sheets 1 and 2 . . . . . 7.18-3
Sheets 3 annd 4 . . . . . 7.18-4
Sheets 5 and 6 . . . . . 7.18-5
Sheet 7 . . . . . 7.18-6

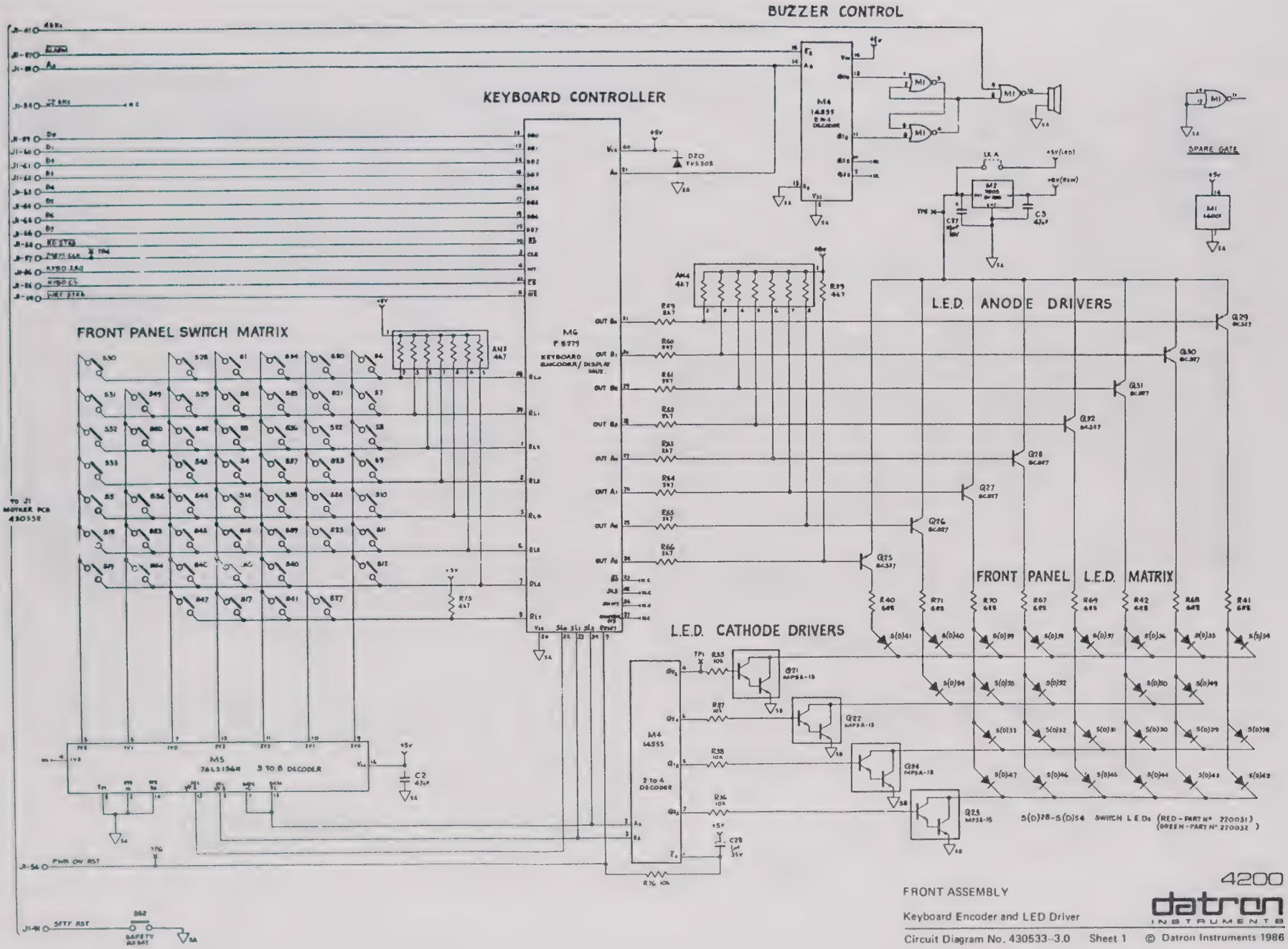
REAR PANEL ASSEMBLY
Rear Panel Assembly 7.18-6

OPTION FITTING INSTRUCTIONS
Option 30: Current 7.19-1
Option 80: 115V 60Hz 7.19-1
Option 90: Rack Mounting 7.19-1
Option 42· Rear Output 7.19-3

datron INSTRUMENTS 4200

FRONT ASSEMBLY


PINS OF THE DISPLAYS MUST BE CUT ALONG THE LINE SHOWN 'X-X', THEN THE PINS MUST BE BENT FROM 'A' TO 'B' BEFORE INSERTION INTO PCB
MOUNTING ICs
Fit M1 into 14 way DIL socket 605060/L
Fit M2 into 24 way DIL socket 605097
Fit M4 & M5 into 16 way DIL sockets 605061/L
Fit M6 into 40 way DIL socket 605098
EACH DISPLAY TO HAVE 3 PIECES OF PRESSURE SENSITIVE TAPE 620029 20mm Long STUCK TO THE REVERSE OF THE DISPLAY IN POSITIONS SHOWN. LINE UP & PRESS DISPLAY FIRMLY INTO PLACE. THEN SOLDER THE 24 PINS ONLY WHICH ARE SHOWN BELOW. (THERE ARE ONLY SOLDER PADS FOR THOSE PINS)
CUT PINS HERE
DISPLAY
TAPE
PCB
SLIDE THIN STEEL RULE BETWEEN DISPLAY & PCB TO SPLIT FOAM TAPE
TO REMOVE DISPLAY
PCB 410144-.
2 off Solder Terminal 620008
TO SECURE M3 SEE FIXING DETAIL AT BOTTOM OF SHEET
SECURE BUZZER (PART No 920096) WITH
1 off M3 x 6mm SLOT CSK SCREW 611086
2 off M3 WASHER 618026
2 off M3 INT SHAKEPROOF 618027
2 off M3 FULL NUT 618008
2 off 8½ DIGIT DISPLAY 800017
BEFORE FITTING EITHER DISPLAYS SEE INSTRUCTIONS ABOVE
TEST POINT TERMINAL 620007 3 off
REMOVE CLEANING MASK BEFORE FITTING TO P.C.B.
Fit 3 off 24+24 WAY "I" P.C.B. PLUG 604088 TO UNDERSIDE OF P.C.B. ENSURE THAT BODY IS TIGHT & SQUARE TO P.C.B. WITH MOULDED PIPS POINTING TOWARDS LOWER EDGE OF P.C.B.
GREEN L.E.Ds. 3 off ALL OTHERS RED
LINK SHOWN DOTTED, NOT FITTED AT ASSY STAGE
NOTE ! ALL PINS ON SOLDER SIDE OF P.C.B. MUST BE CROPPED TO 2·5mm OR LESS.
ENSURE THAT C8 TO C26 LEADS ARE FORMED WITH THE LEADS SPACED AWAY FROM THE P.C.B.
4 off STANDOFFS M3·5+4mm 612022. FIT UNDERSIDE OF P.C.B.
NOTE : NO COMPONENTS TO STAND HIGHER THAN 8mm (EXCEPT SWITCHES)
SCREW M3 x 6mm SLOTTED PANHD. 611078
WASHER M3 SHAKEPROOF 618006
NUT M3 HEX FULL 618008
VIEW TO SHOW FIXING OF M3
N.B. : "ALL VIA HOLES AND SPARE COMPONENT HOLES MUST BE SOLDERED"



4200

FRONT ASSEMBLY

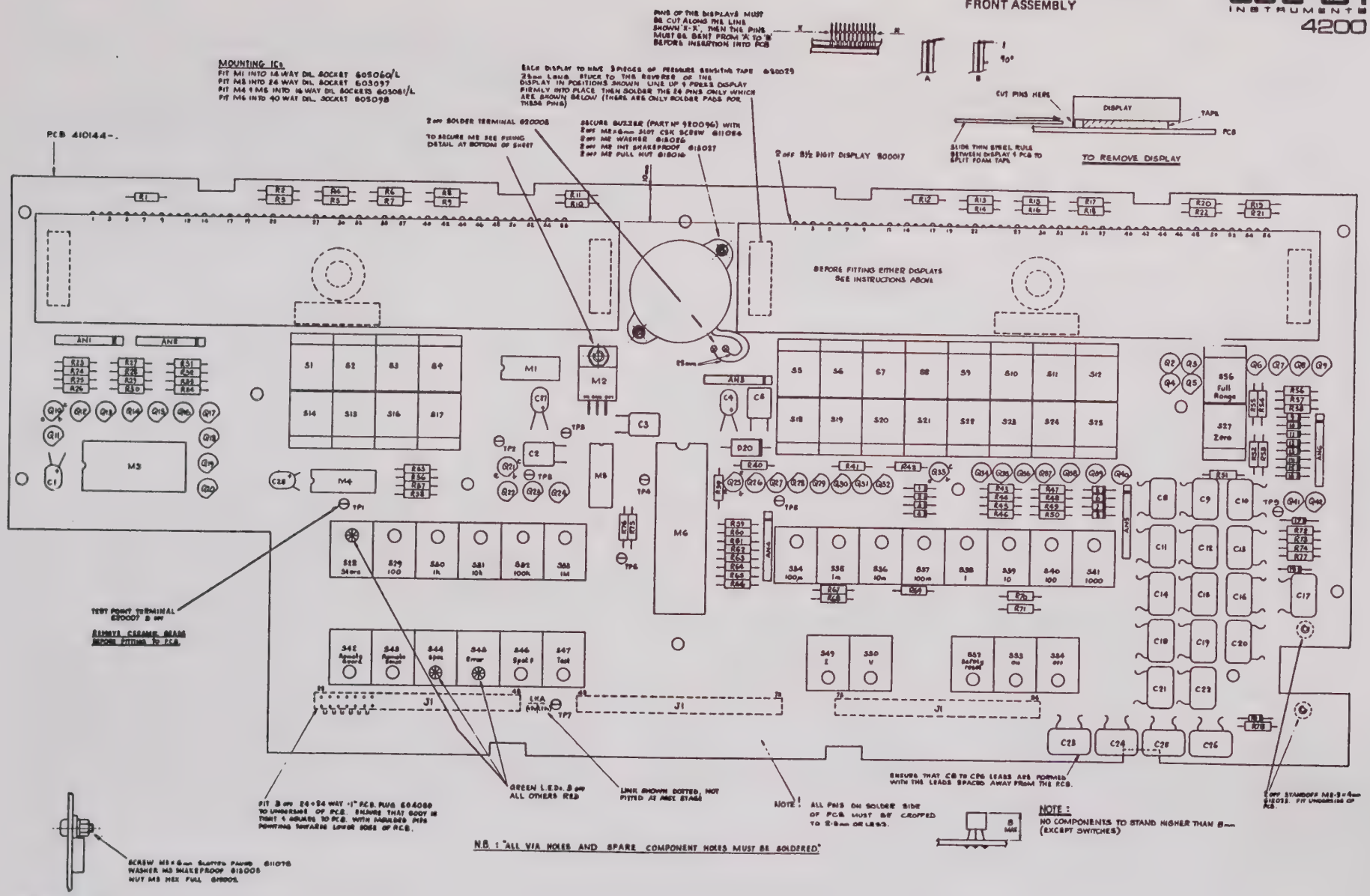
Keyboard Encoder and LED Driver

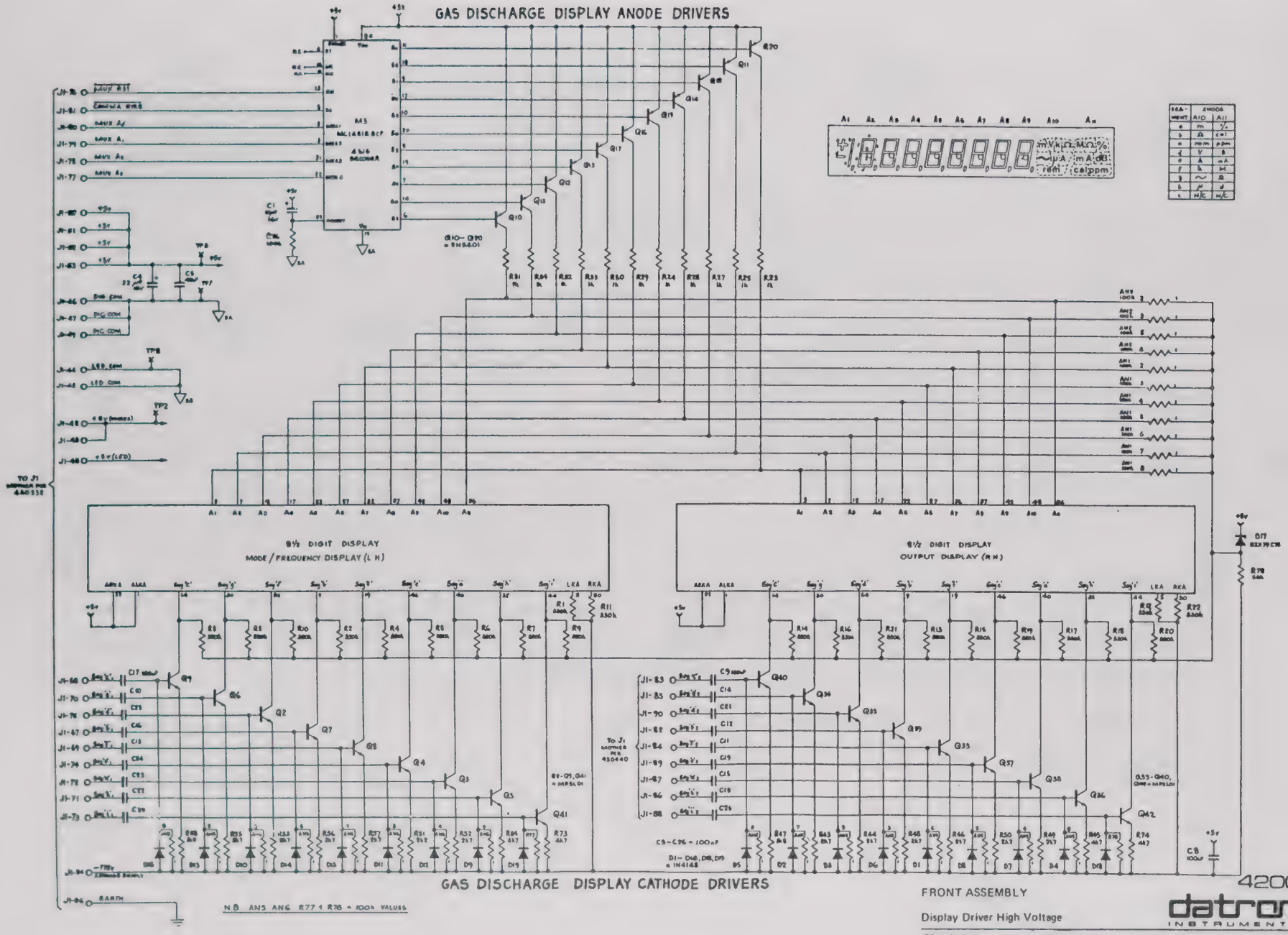
datron INSTRUMENTS

Circuit Diagram No. 430533-3.0 Sheet 1 © Datron Instruments 1986

datron INSTRUMENTS 4200

FRONT ASSEMBLY



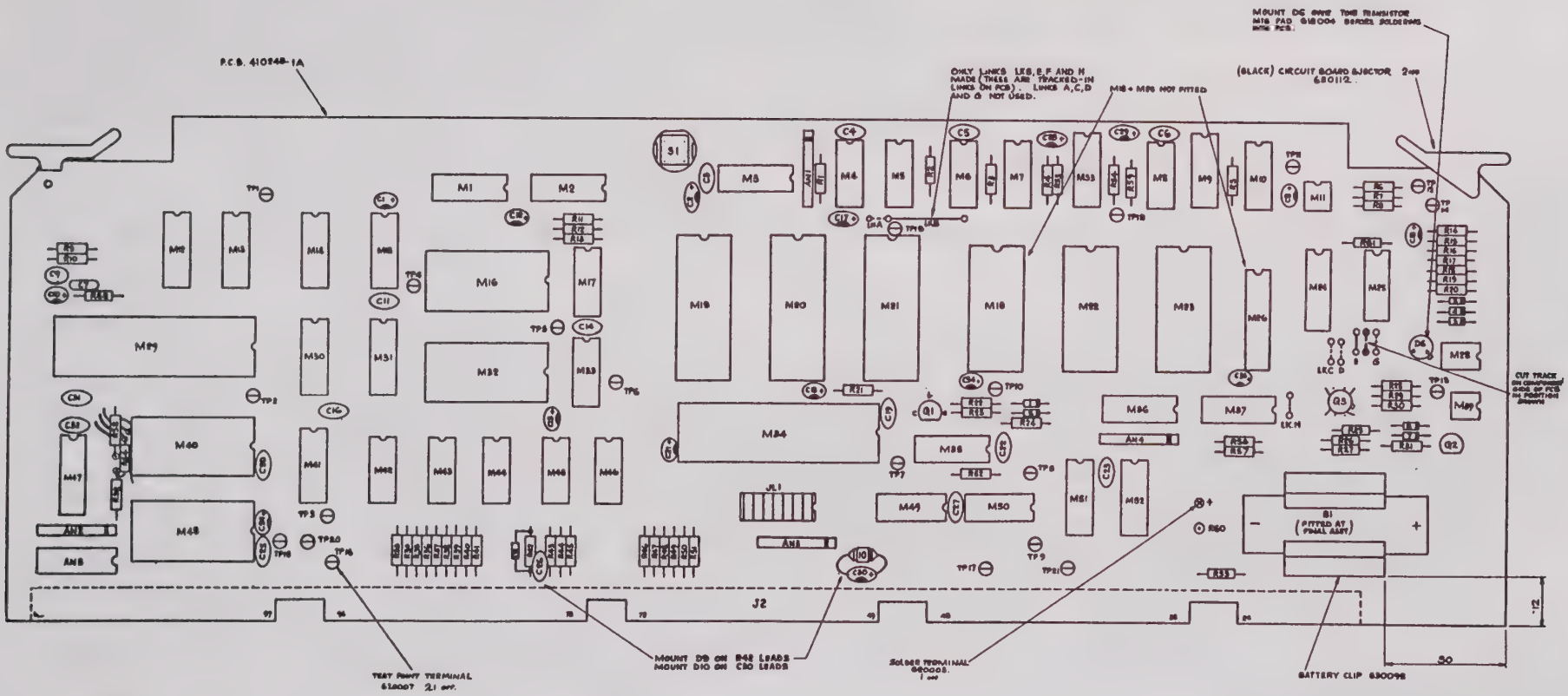

GAS DISCHARGE DISPLAY ANODE DRIVERS
8½ DIGIT DISPLAY
MODE / FREQUENCY DISPLAY (L H)
8½ DIGIT DISPLAY
OUTPUT DISPLAY (R H)
GAS DISCHARGE DISPLAY CATHODE DRIVERS
TO J1
FRONT ASSEMBLY
Display Driver High Voltage
Circuit Diagram No. 430533-3.0
Sheet 2
© Datron Instruments 1986
4200
datron
INSTRUMENTS
7.1-2

DIGITAL ASSEMBLY

datron INSTRUMENTS 4200

THIRD ANGLE PROJECTION

DRAWN IN ACCORDANCE WITH BS 308



MOUNTING I.C.s

FIT M1 - M39 INTO 6-WAY DIL. SOCKET 608064/A 2 off

FIT M28 INTO 8-WAY DIL. SOCKET 608068/A 2 off

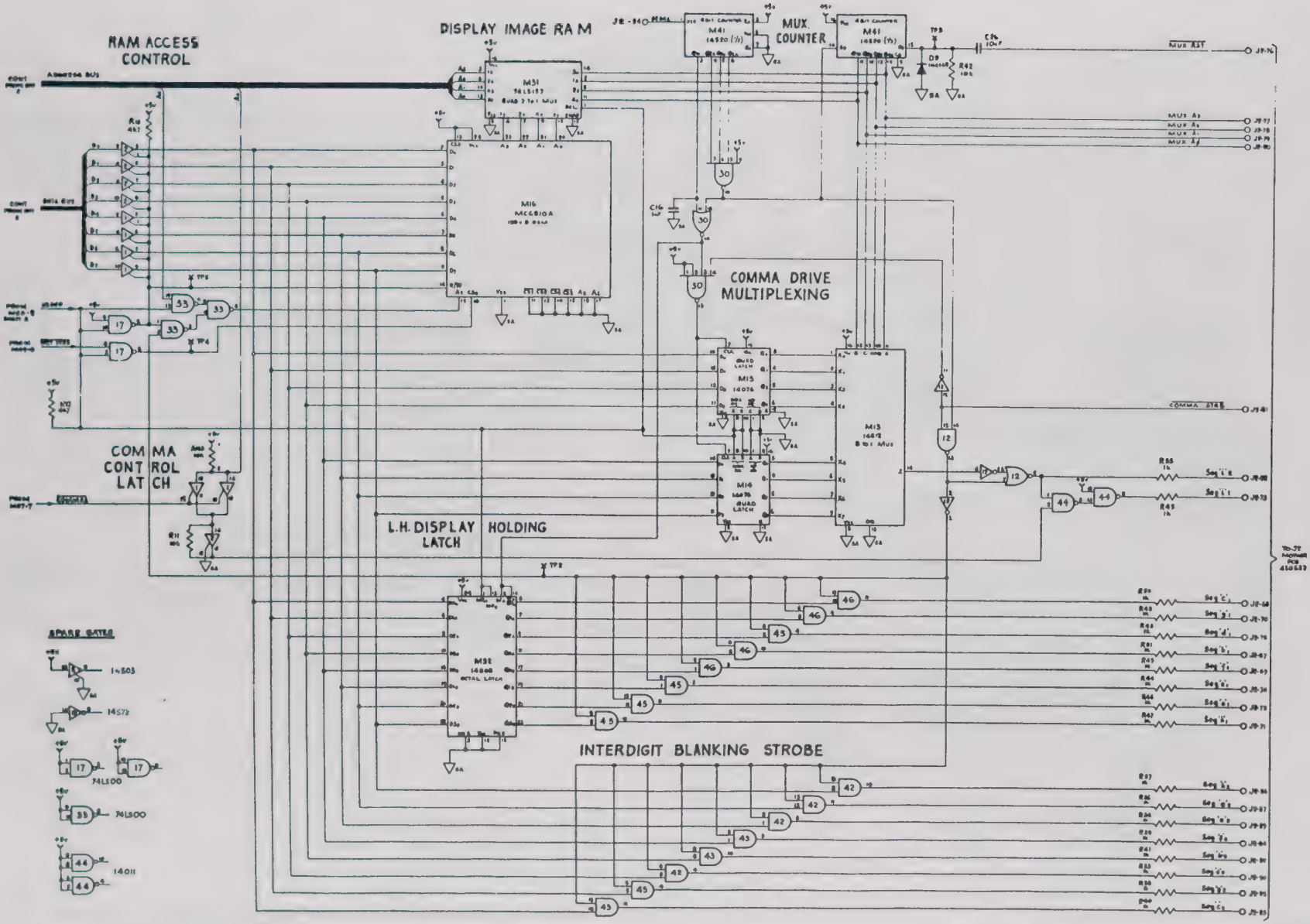
FIT M4 - M8, M10, M17, M28, M35, M42 - M46, M48 & M50 INTO 14-WAY DIL. SOCKET 608066/A 18 off

FIT M1 - M3, M9, M12 - M16, M24, M30, M31, M36 - M39, M41, M47, M51 - M53 & JL1 INTO 16-WAY DIL. SOCKET 608068/A 30 off

FIT M19 - M21 INTO 22-WAY DIL. SOCKET 608064/A 3 off

FIT M22, M23, M25, M27, M32 & M33, M40 & M49 INTO 24-WAY DIL. SOCKET 608064/A 7 off

FIT M29 & M34 INTO 40-WAY DIL. SOCKET 608040/A 2 off



DIGITAL ASSEMBLY

4200

Display Multiplexing Logic

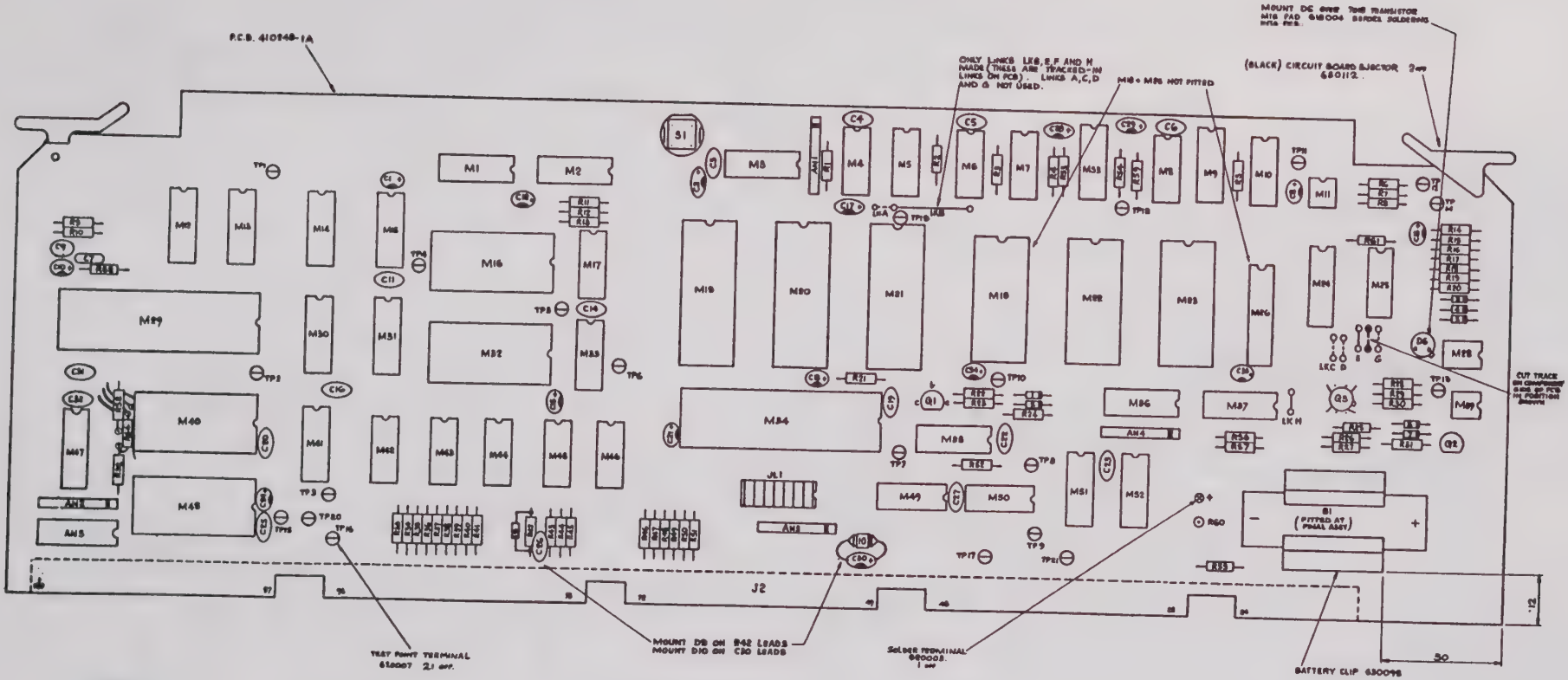
Circuit Diagram No. 430534-9.0 Sheet 1

© Datron Instruments 1986

THIRD ANGLE PROJECTION
DRAWN IN ACCORDANCE WITH BS 308

DIGITAL ASSEMBLY

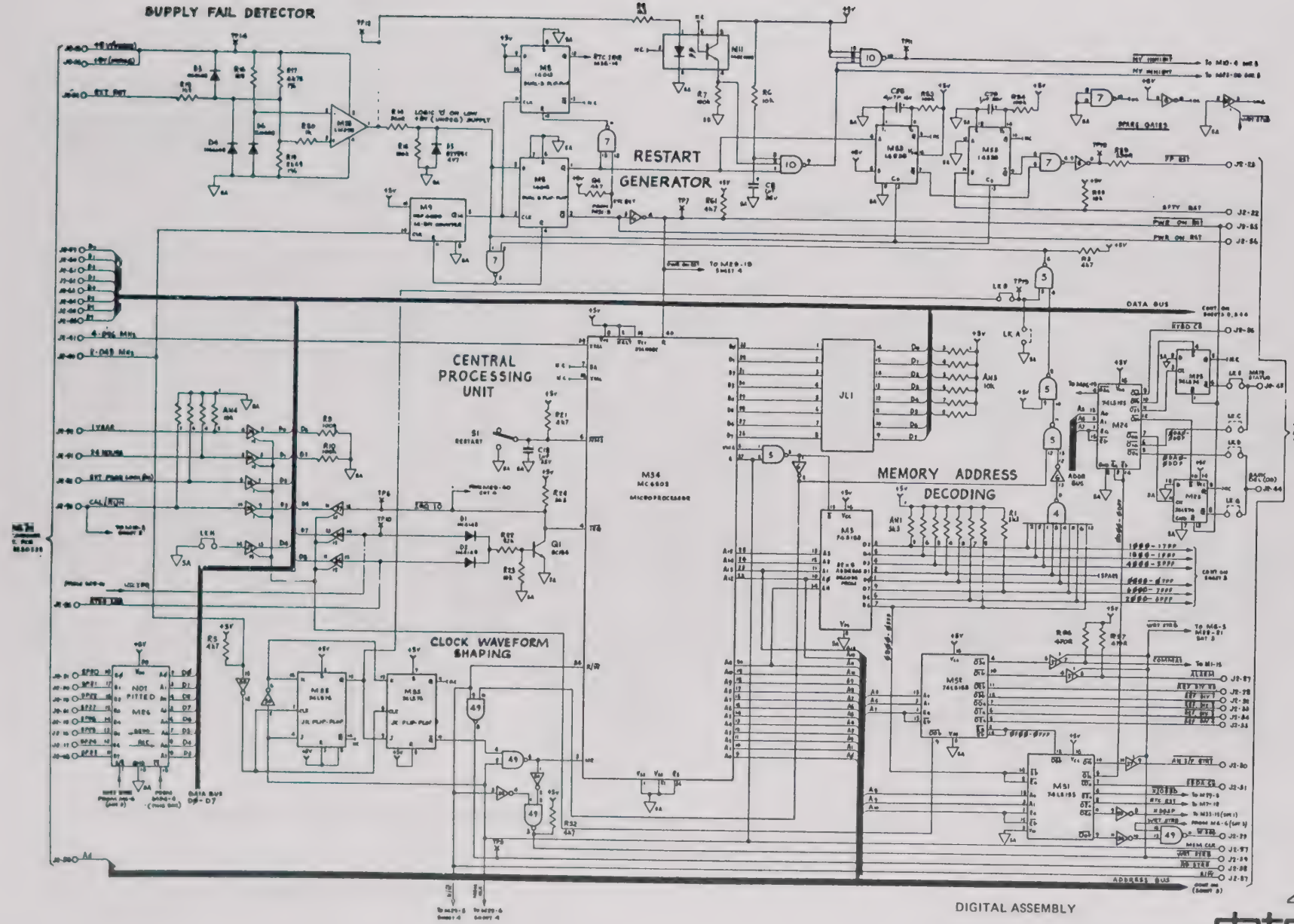
datron INSTRUMENTS 4200


P.C.B. 410548-1A
ONLY LINKS LK6, E, F AND H MADE (THESE ARE TRACKED-IN LINKS ON PCB) LINKS A, C, D AND G NOT USED.
M16 + M26 NOT FITTED
(BLACK) CIRCUIT BOARD EJECTOR 2 off 680112.
CUT TRACK
J2
TEST POINT TERMINAL 612007 2.1 off.
MOUNT D8 ON R42 LEADS
MOUNT D10 ON C80 LEADS
SOLDER TERMINAL 640008. 1 off
BATTERY CLIP 630098
50

MOUNTING I.Cs.

FIT M1 - M20 INTO 6-WAY DIL. SOCKET 608066/A 2 off
FIT M28 INTO 8-WAY DIL. SOCKET 608008/A 2 off
FIT M4 - M5, M10, M17, M25, M33, M42 - M46, M49 & M50 INTO 14-WAY DIL. SOCKET 608062/A 16 off
FIT M1 - M3, M6, M12 - M16, M24, M30, M31, M36 - M37, M41, M47, M51 - M55 & JL1 INTO 16-WAY DIL. SOCKET 608063/A 20 off

FIT M18 - M21 INTO 28-WAY DIL. SOCKET 608064/A 3 off
FIT M22, M26, M27, M32, M38, M40 & M48 INTO 24-WAY DIL. SOCKET 608064/A 7 off
FIT M29 & M34 INTO 40-WAY DIL. SOCKET 608080/A 2 off



DIGITAL ASSEMBLY

Microprocessor

4200

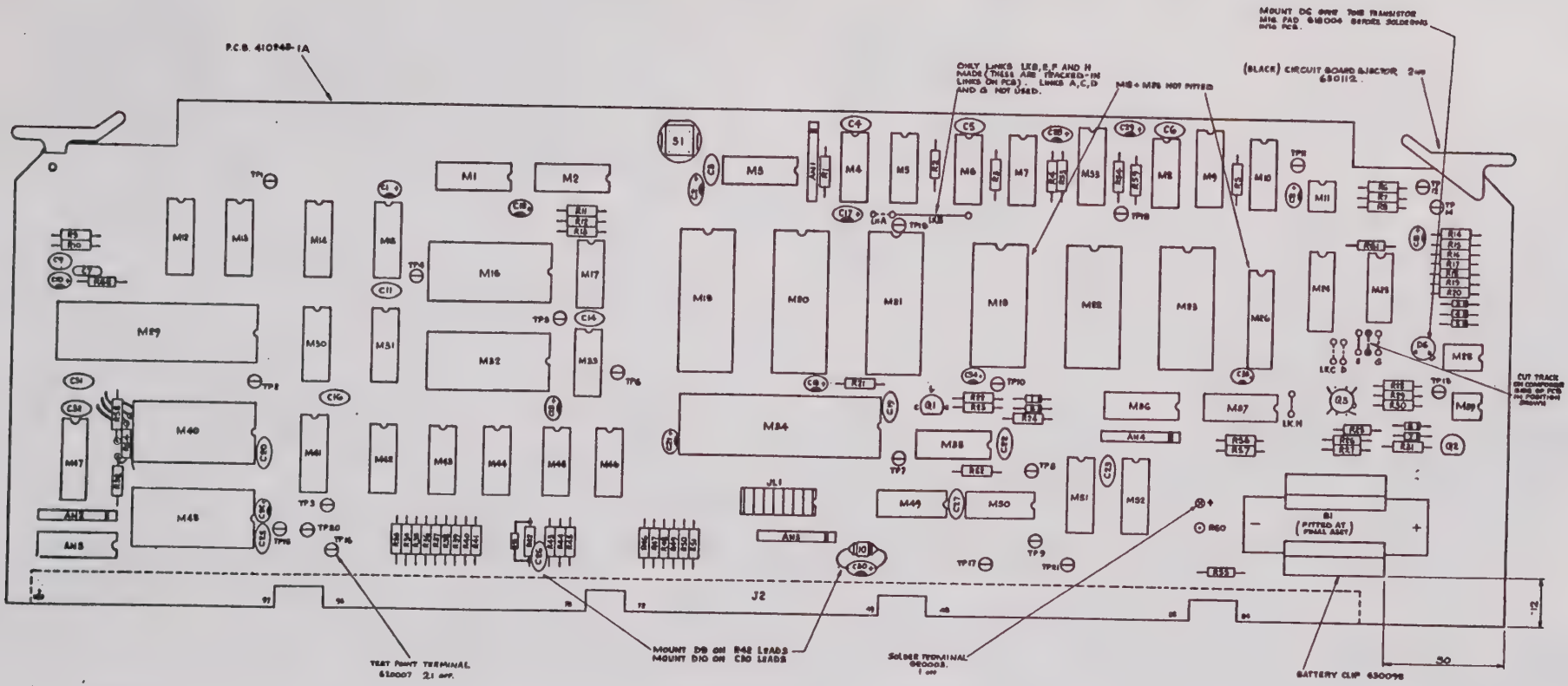
datron INSTRUMENTS

Circuit Diagram No. 430534-9.0 Sheet 2 © Datron Instruments 1986

THIRD ANGLE PROJECTION
DRAWN IN ACCORDANCE WITH BS 308

DIGITAL ASSEMBLY

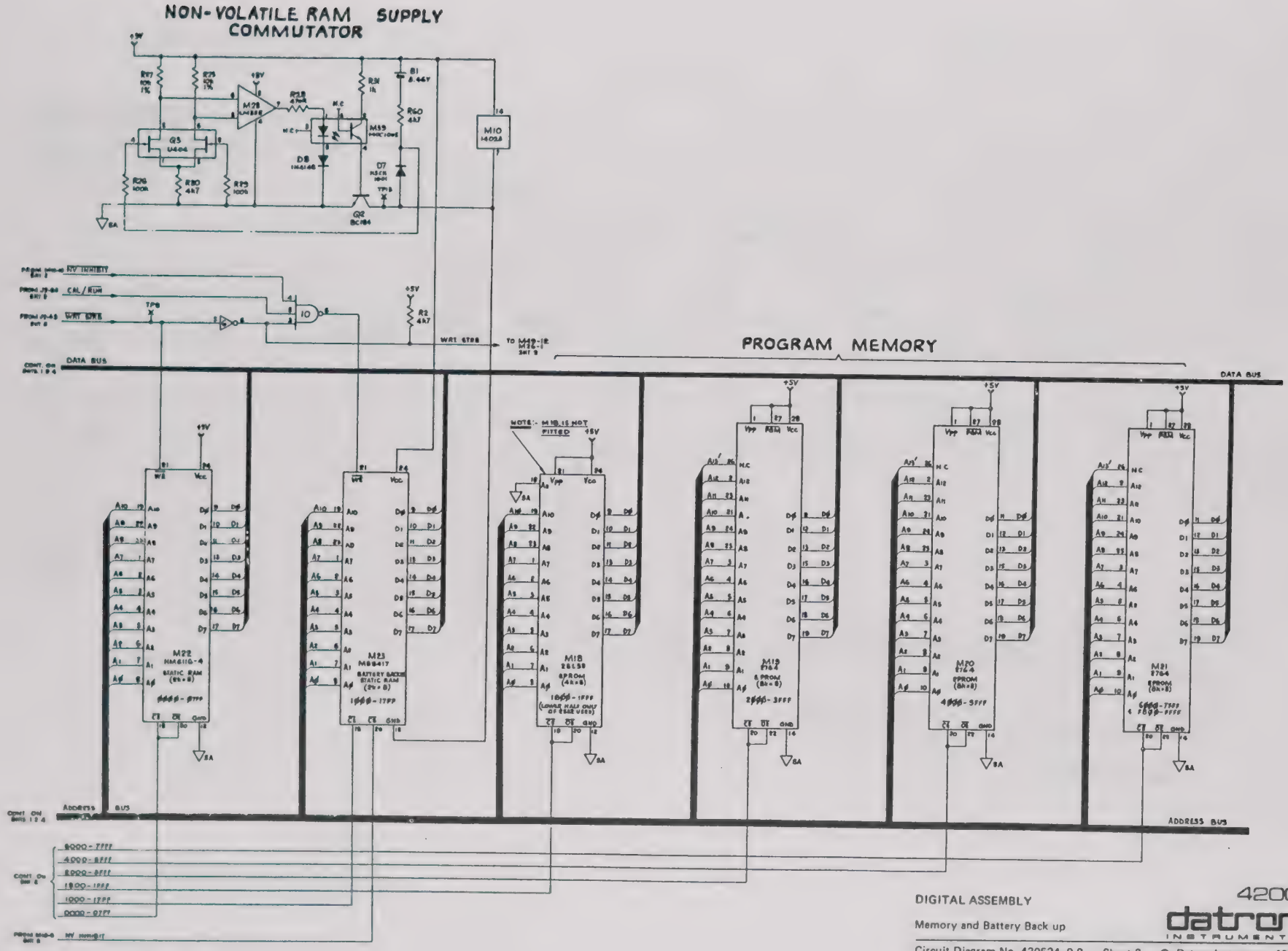
datron INSTRUMENTS 4200


P.C.B. 410948-1A
ONLY LINKS LKB, E, F AND H MADE (THESE ARE STACKED-IN LINKS ON PCB). LINKS A, C, D AND G NOT USED.
M16 + M18 NOT FITTED
(BLACK) CIRCUIT BOARD EJECTOR 650112
CUT TRACK
J2
TEST POINT TERMINAL 612007 2.1 mm.
MOUNT D8 ON R42 LEADS
MOUNT D10 ON C20 LEADS
SOLDER TERMINAL 660008.
BATTERY CLIP 630098
30

MOUNTING I.C.s.

FIT M1 - M28 INTO 8-WAY DIL. SOCKET 608064/A 2 mm
FIT M29 INTO 8-WAY DIL. SOCKET 608089/A 2 mm
FIT M4 - M5, M10 M17 M25 M35 M42 - M46 M48 + M50 INTO 14 WAY DIL. SOCKET 608062/A 16 mm
FIT M1 - M3, M9 M12 - M15 M24 M30 M31 M38 - M47 M49 M51 M57 M58 - M53 + JL1 INTO 16 WAY DIL. SOCKET 608061/A 20 mm

FIT M19 - M21 INTO 28-WAY DIL. SOCKET 608066/A 3 mm
FIT M16, M18, M22, M23, M26, M40 + M48 INTO 24-WAY DIL. SOCKET 608064/A 7 mm
FIT M27 + M36 INTO 40-WAY DIL. SOCKET 608080/A 2 mm

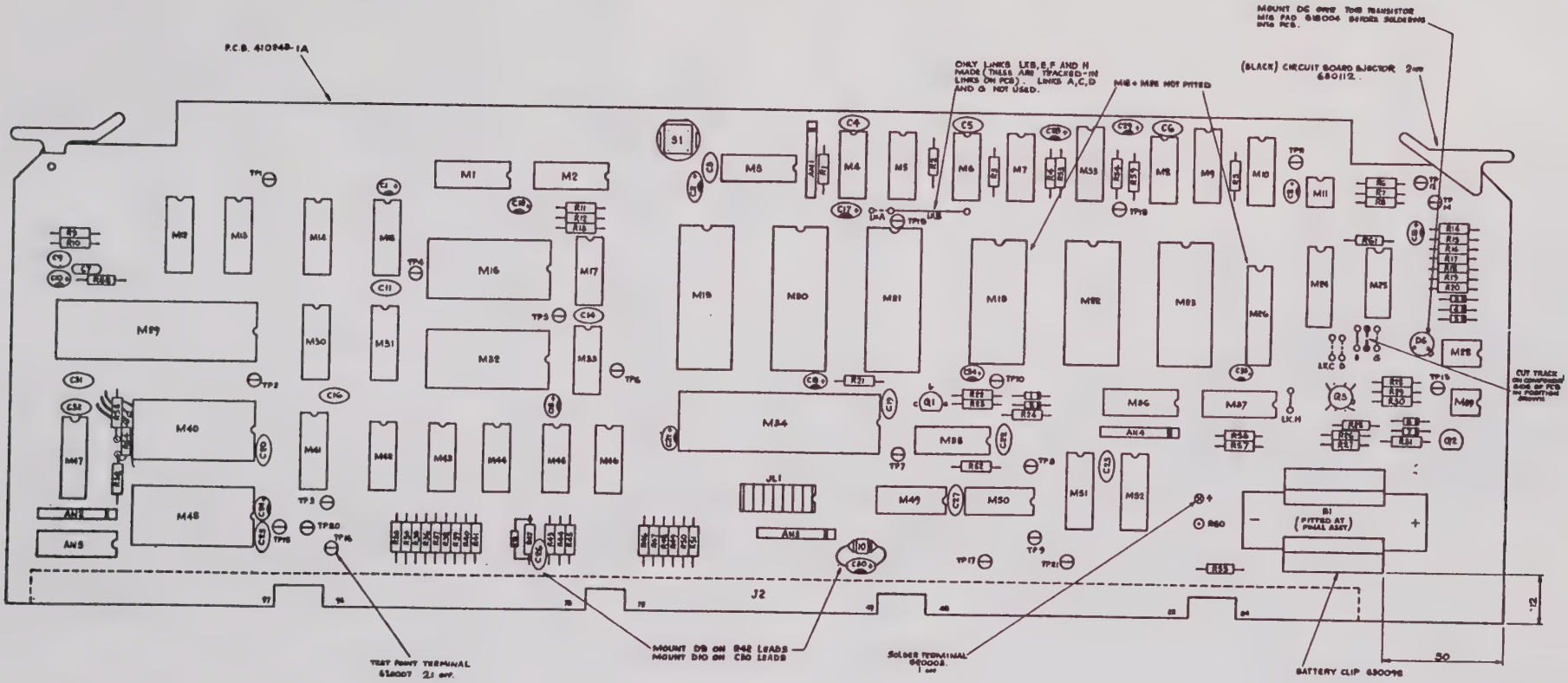

NON-VOLATILE RAM SUPPLY COMMUTATOR
PROGRAM MEMORY
DATA BUS
ADDRESS BUS
WR1 6708
NOTE:- M18 IS NOT FITTED
M22 NM6116-4 STATIC RAM (2K x 8)
M23 M68417 BATTERY BACKED STATIC RAM (2K x 8)
M18 2815B EPROM (4K x 8)
M19 2764 EPROM (8K x 8)
M20 2764 EPROM (8K x 8)
M21 2764 EPROM (8K x 8)
8000 - 7FFF
4000 - 5FFF
2000 - 3FFF
1800 - 1FFF
1000 - 17FF
0000 - 07FF
DIGITAL ASSEMBLY
Memory and Battery Back up
Circuit Diagram No. 430534-9.0 Sheet 3 © Datron Instruments 1986
4200
datron INSTRUMENTS

DIGITAL ASSEMBLY

datron INSTRUMENTS 4200

THIRD ANGLE PROJECTION

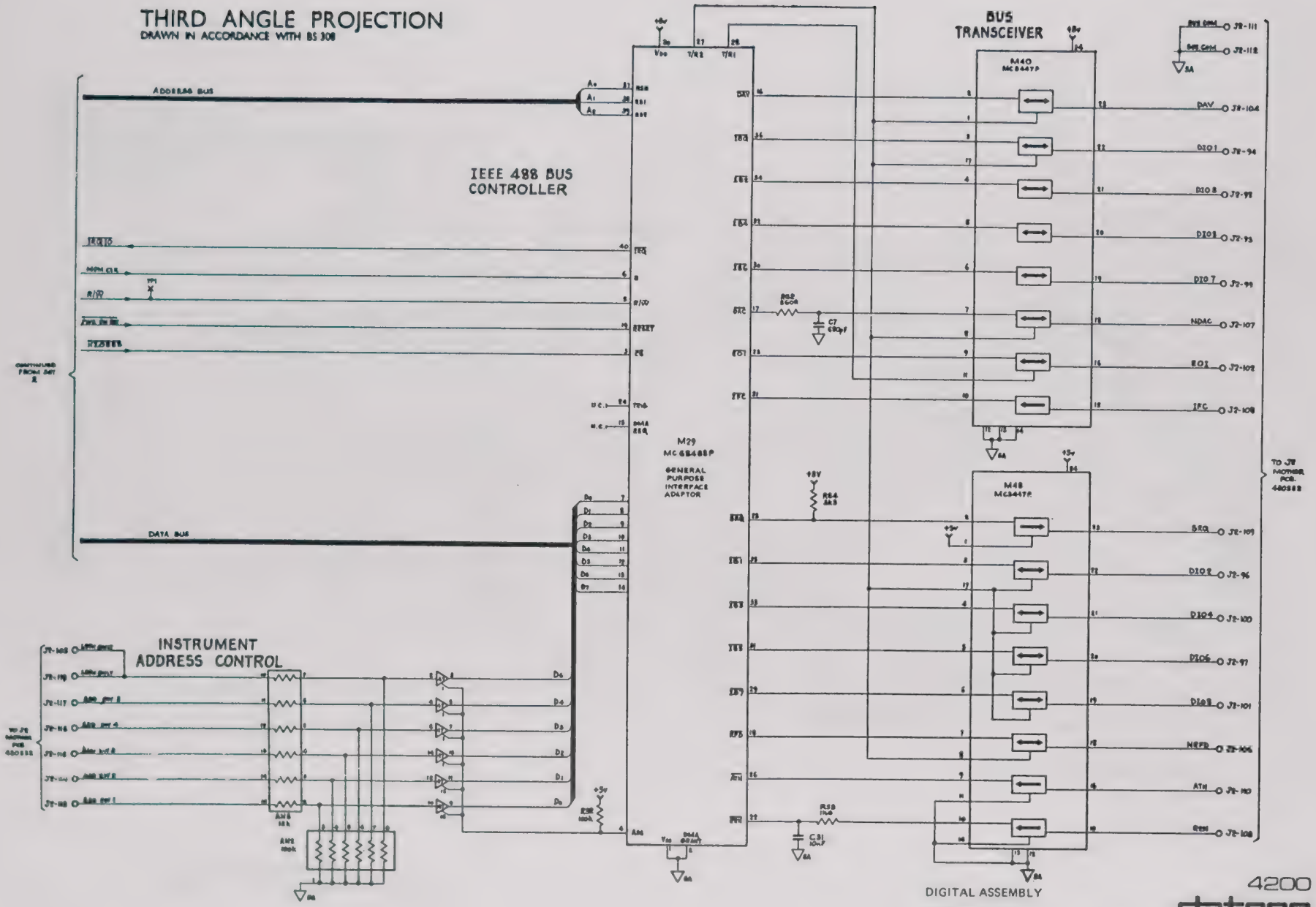
DRAWN IN ACCORDANCE WITH BS 308


P.C.B. 410848-1A
ONLY LINKS LEB, E, F AND H MADE (THESE ARE TRACKED-IN LINKS ON PCB). LINKS A, C, D AND G NOT USED.
M16 + M25 NOT FITTED
(BLACK) CIRCUIT BOARD EJECTOR 2off 680112.
CUT TRACK ON COMPONENT SIDE OF PCB ON POSITION SHOWN
TEST POINT TERMINAL 612007 21 off.
MOUNT DB ON R42 LEADS
MOUNT DIO ON C10 LEADS
SOLDER TERMINAL 660008. 1 off
BATTERY CLIP 630098
J2
B1 (FITTED AT FINAL ASSY)
50

MOUNTING I.Cs.

FIT M1 + M36 INTO 8-WAY DIL. SOCKET 605064/A 2 off
FIT M26 INTO 8-WAY DIL. SOCKET 605089/A 2 off
FIT M4-M5 M10 M17 M25 M33 M42-M45 M48 + M50 INTO 14 WAY DIL. SOCKET 605060/A 16 off
FIT M6-M8 M9 M12-M15 M18 M20 M21 M38-M37 M41 M47 M51-M53 + JL1 INTO 16 WAY DIL. SOCKET 605061/A 30 off

FIT M19 - M21 INTO 28-WAY DIL. SOCKET 605065/A 3 off
FIT M16, M22, M27, M28, M38, M40 + M46 INTO 24-WAY DIL. SOCKET 605064/A 7 off
FIT M39 + M34 INTO 40-WAY DIL. SOCKET 605050/A 2 off


THIRD ANGLE PROJECTION
DRAWN IN ACCORDANCE WITH BS 308
IEEE 488 BUS CONTROLLER
M29 MC 6840P
GENERAL PURPOSE INTERFACE ADAPTOR
BUS TRANSCEIVER
M40 MC 8447P
M48 MC 8447P
INSTRUMENT ADDRESS CONTROL
ADDRESS BUS
DATA BUS
DAV
DIO1
DIO8
DIO5
DIO7
NDAC
EOI
IFC
SRQ
DIO2
DIO4
DIO6
DIO3
NRFD
ATN
REN
TO J8 MOTHER PCB 480888
DIGITAL ASSEMBLY
IEEE 488 Interface
4200
datron INSTRUMENTS
Circuit Diagram No. 430534-9.0 Sheet 4 © Datron Instruments 1986

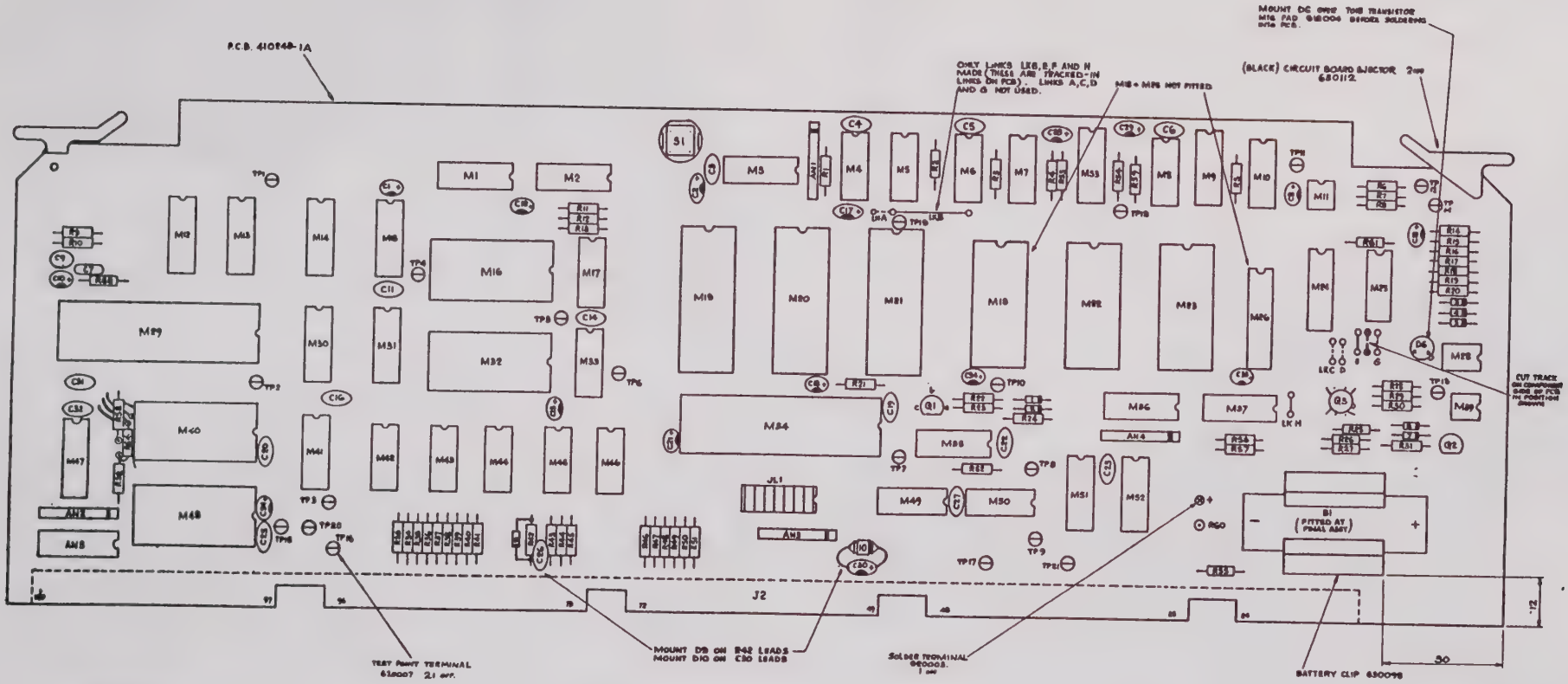
7.2..A

THIRD ANGLE PROJECTION

DRAWN IN ACCORDANCE WITH BS 308

DIGITAL ASSEMBLY

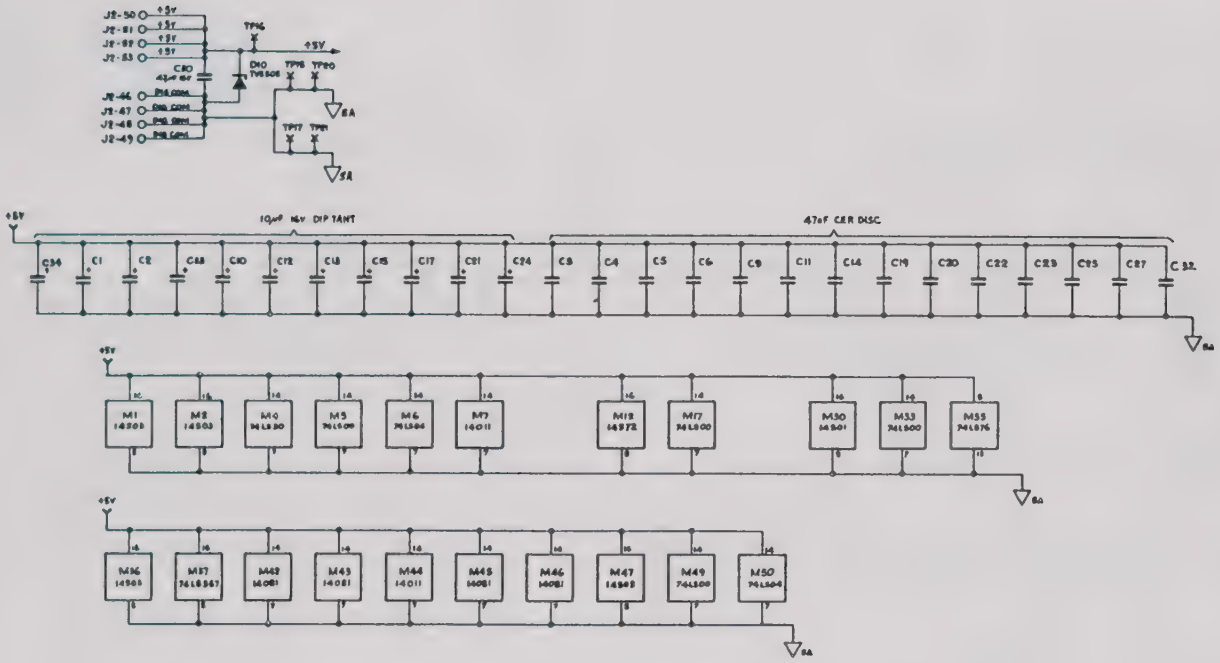
datron INSTRUMENTS 4200


P.C.B. 410248-1A
ONLY LINKS LKG, E, F AND H MADE (THESE ARE TRACKED-IN LINKS ON PCB). LINKS A, C, D AND G NOT USED.
M18 + M25 NOT FITTED
(BLACK) CIRCUIT BOARD EJECTOR 2 off 680112
MOUNT DC end TO8 TRANSISTOR M16 PAD 680004 BEFORE SOLDERING INTO PCB.
CUT TRACK ON COMPONENT SIDE OF PCB IN POSITIONS SHOWN
J2
JL1
TEST POINT TERMINAL 612007 21 off.
MOUNT D18 ON B42 LEADS
MOUNT D20 ON C30 LEADS
SOLDER TERMINAL 680003. 1 off
BATTERY CLIP 650098
B1 (FITTED AT FINAL ASSY)
LK C
LK H
30
12

MOUNTING I.Cs.

FIT M8 + M20 INTO 8-WAY DIL. SOCKET 605064/A 2 off
FIT M25 INTO 8-WAY DIL. SOCKET 605069/A 2 off
FIT M4-M6 M10 M17 M24 M33 M42-M45 M49 + M50 INTO 14 WAY DIL. SOCKET 605066/A 16 off
FIT M1-M3 M9 M12-M15 M26 M30 M31 M38-M37 M41 M47 M51-M53 + JL1 INTO 16 WAY DIL. SOCKET 605067/A 20 off

FIT M18 - M21 INTO 22-WAY DIL. SOCKET 605068/A 8 off
FIT M22, M23, M27, M28, M32, M40 + M48 INTO 24-WAY DIL. SOCKET 605069/A 7 off
FIT M29 + M34 INTO 40-WAY DIL. SOCKET 605070/A 2 off



DIGITAL ASSEMBLY

I-C Power Supplies

Dircuit Diagram No. 430534-9.0 Sheet 5 © Datron Instruments 1986

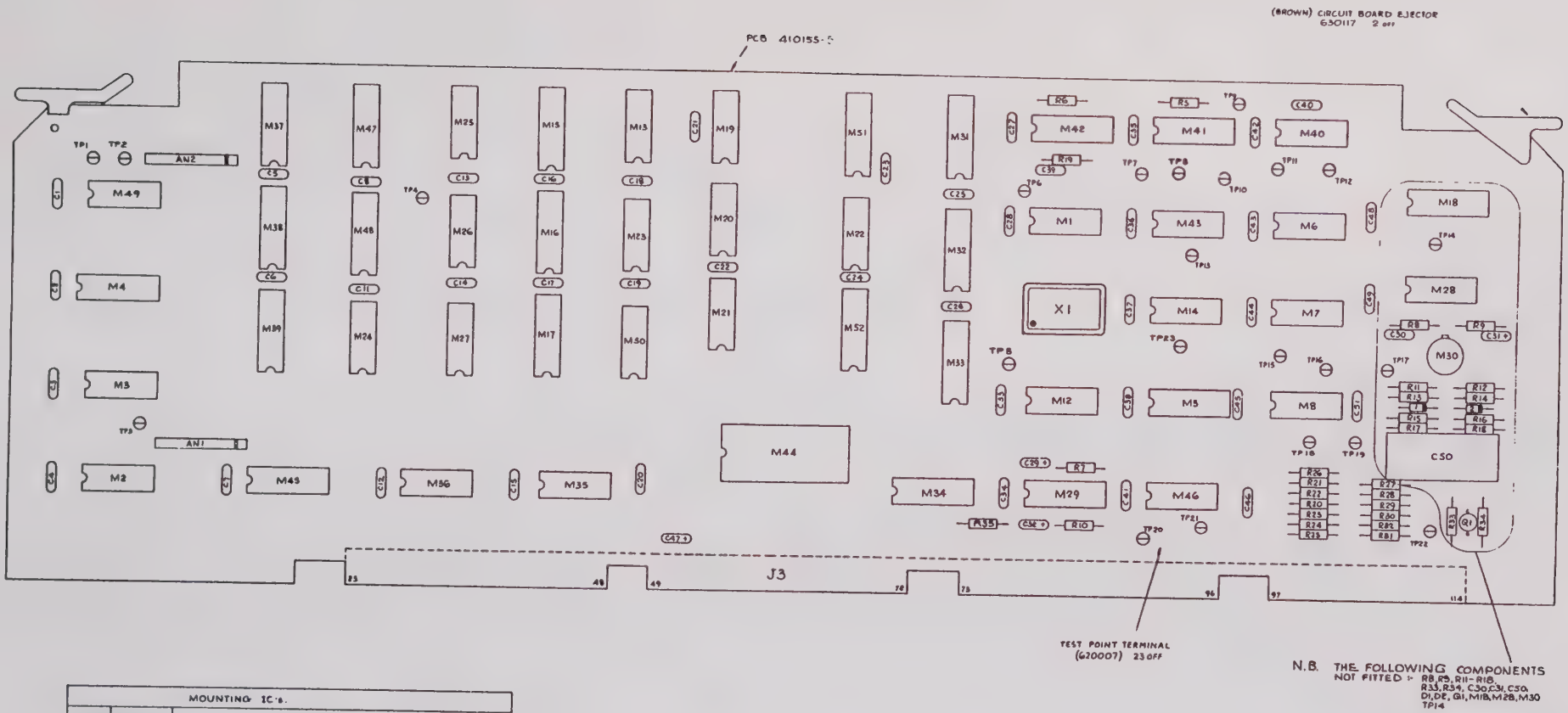
4200

datron INSTRUMENTS

 © Datron Instruments 1986

ANALOG INTERFACE ASSEMBLY

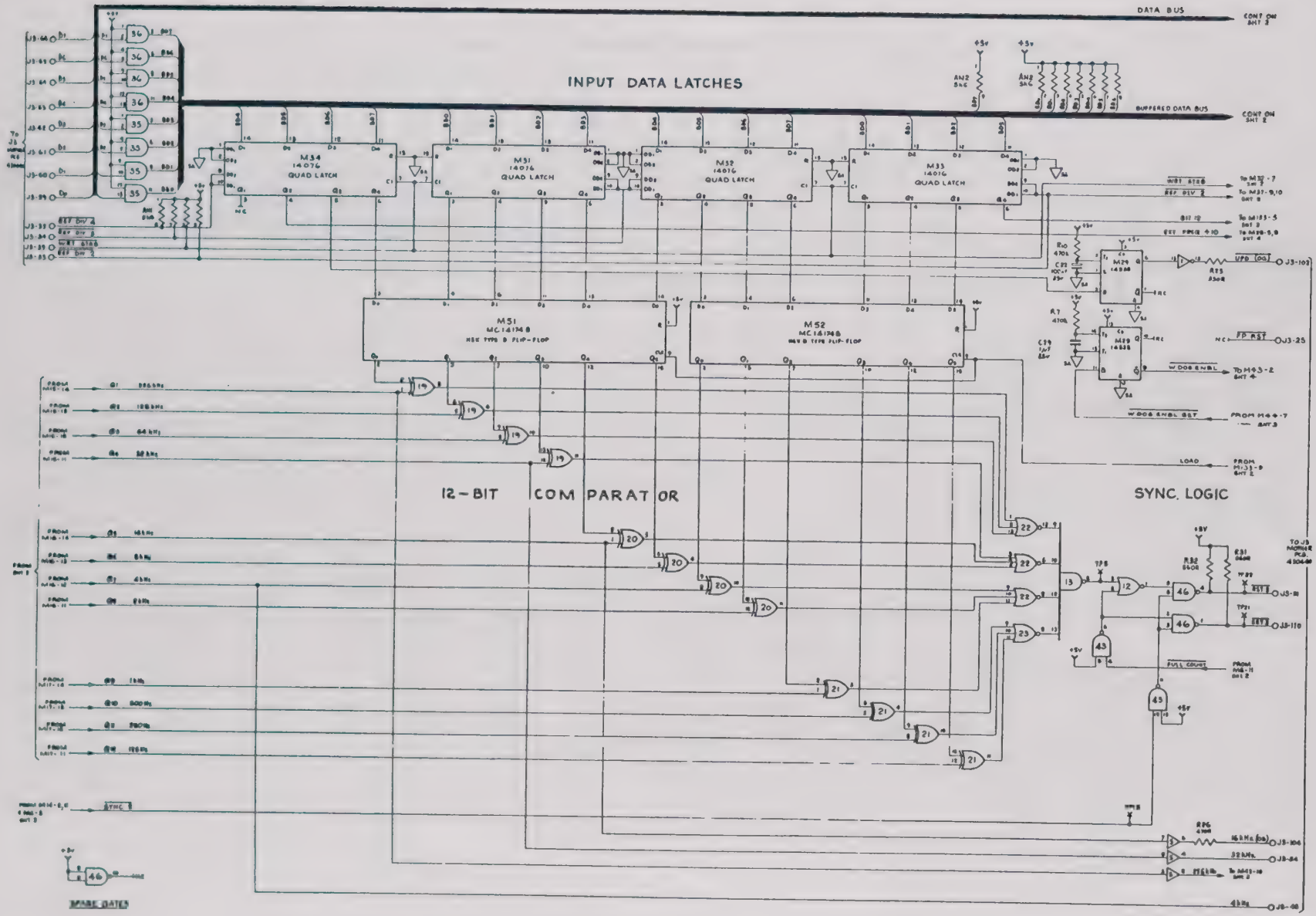
datron INSTRUMENTS 4200



N.B. THE FOLLOWING COMPONENTS NOT FITTED :- R8,R9,R11-R18, R33,R34, C30,C31, C50, D1,D2, G1, M18,M28,M30 TP14

MOUNTING IC's.			
N° WAYS	PART N°	USED TO MOUNT	N° OFF
14	603060/A	1-3, 6-8, 12-14, 19-27, 33, 36, 40, 43, 46, 49 & 50	25
16	603061/A	4-5, 15-17, 29, 31-34, 37-39, 41, 42, 45, 47, 48, 51, 52	20
24	603064/A	44	1

M9 - M11 NOT USED



ANALOG INTERFACE ASSEMBLY

Lower Reference Divider Counter

Circuit Diagram No. 430570--1.0 Sheet 1

© Datron Instruments 1986

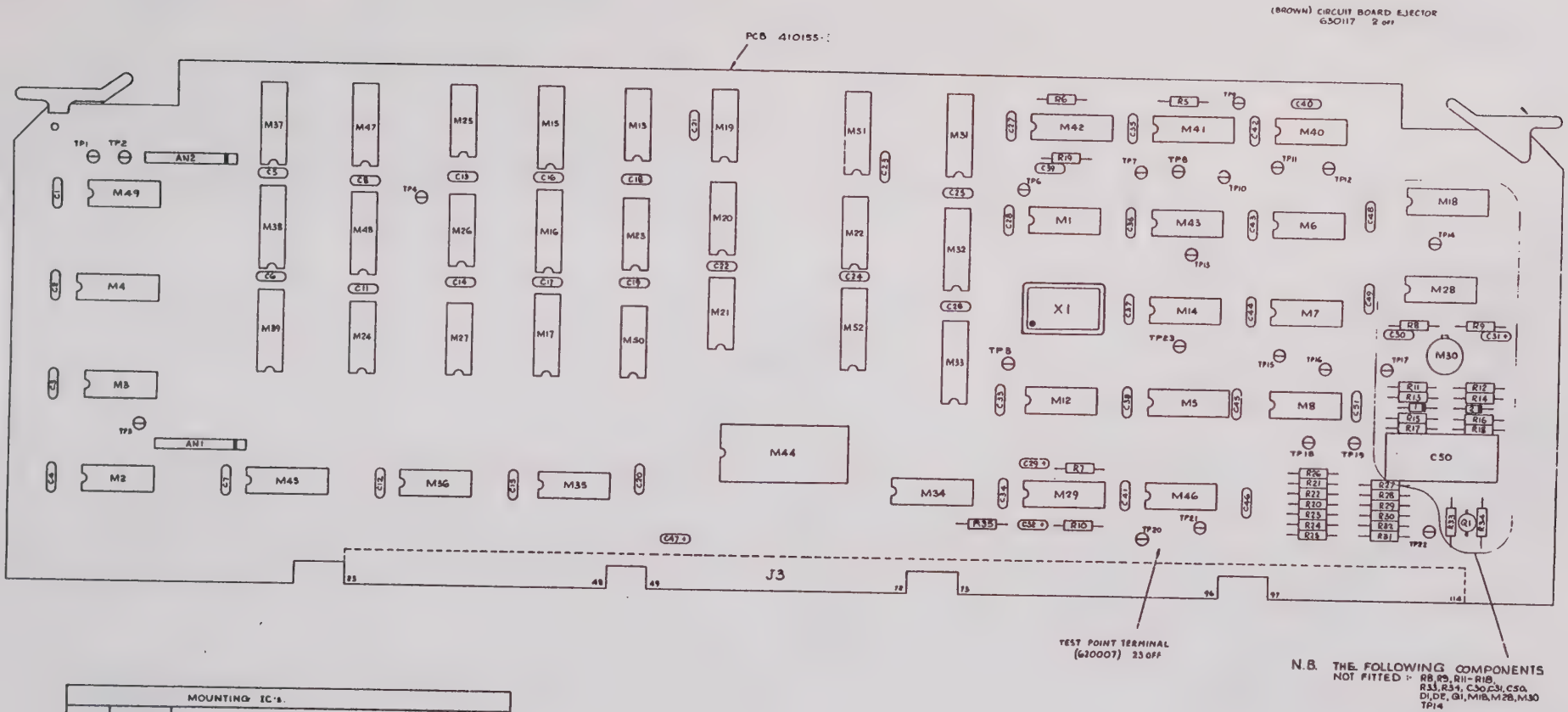
4200

datron INSTRUMENTS

 © Datron Instruments 1986

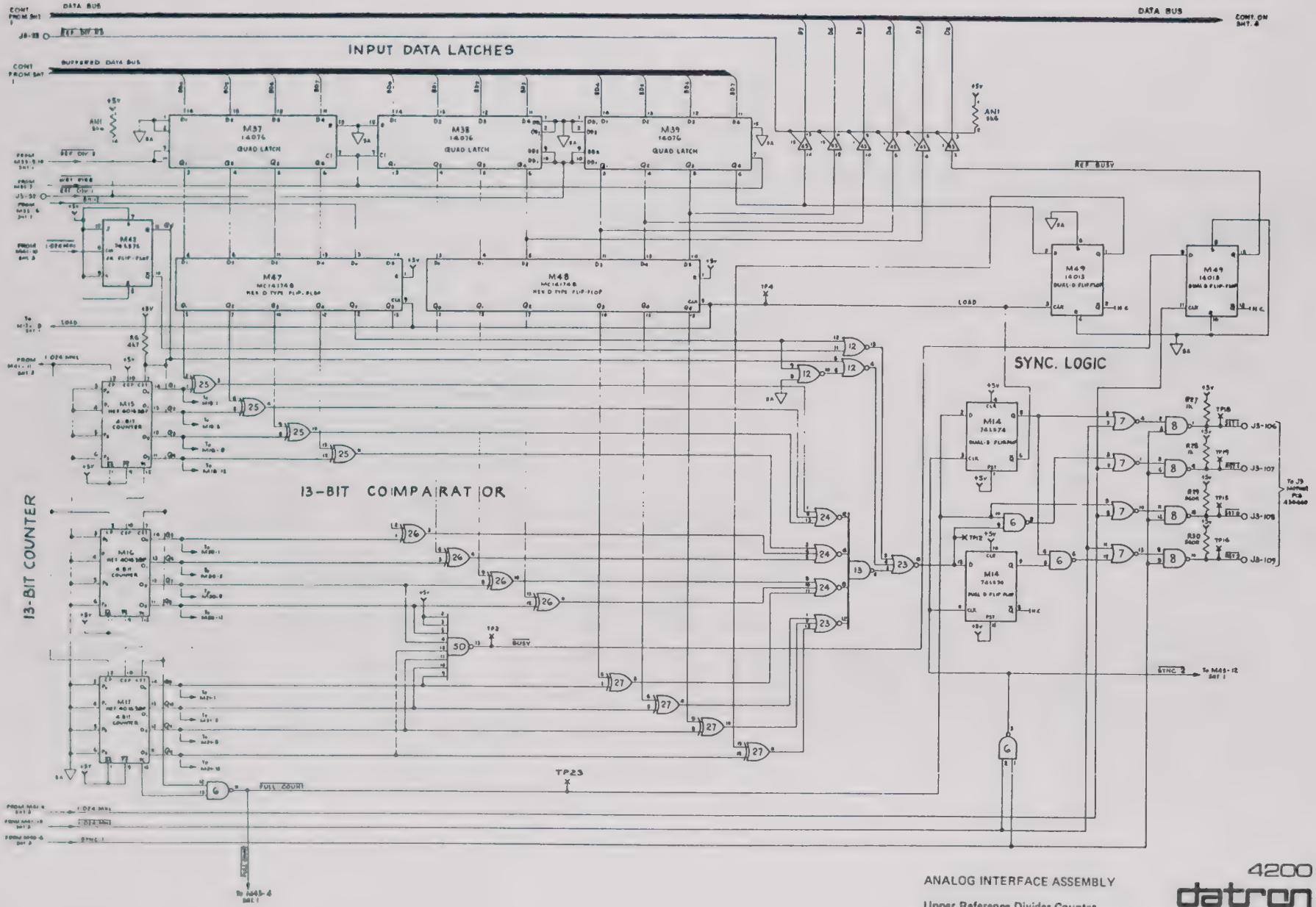
ANALOG INTERFACE ASSEMBLY

datron INSTRUMENTS 4200



MOUNTING IC's.			
N° WAYS	PART N°	USED TO MOUNT	N° OFF
14	605080/A	1-3, 6-8, 12-14, 18-27, 35, 36, 40, 43, 46, 49 & 50	25
16	605081/A	4-5, 15-17, 29, 31-34, 37-39, 41, 42, 45, 47, 48, 51, 52	20
24	605084/A	44	1

M9 - M11 NOT USED



ANALOG INTERFACE ASSEMBLY

Upper Reference Divider Counter

4200

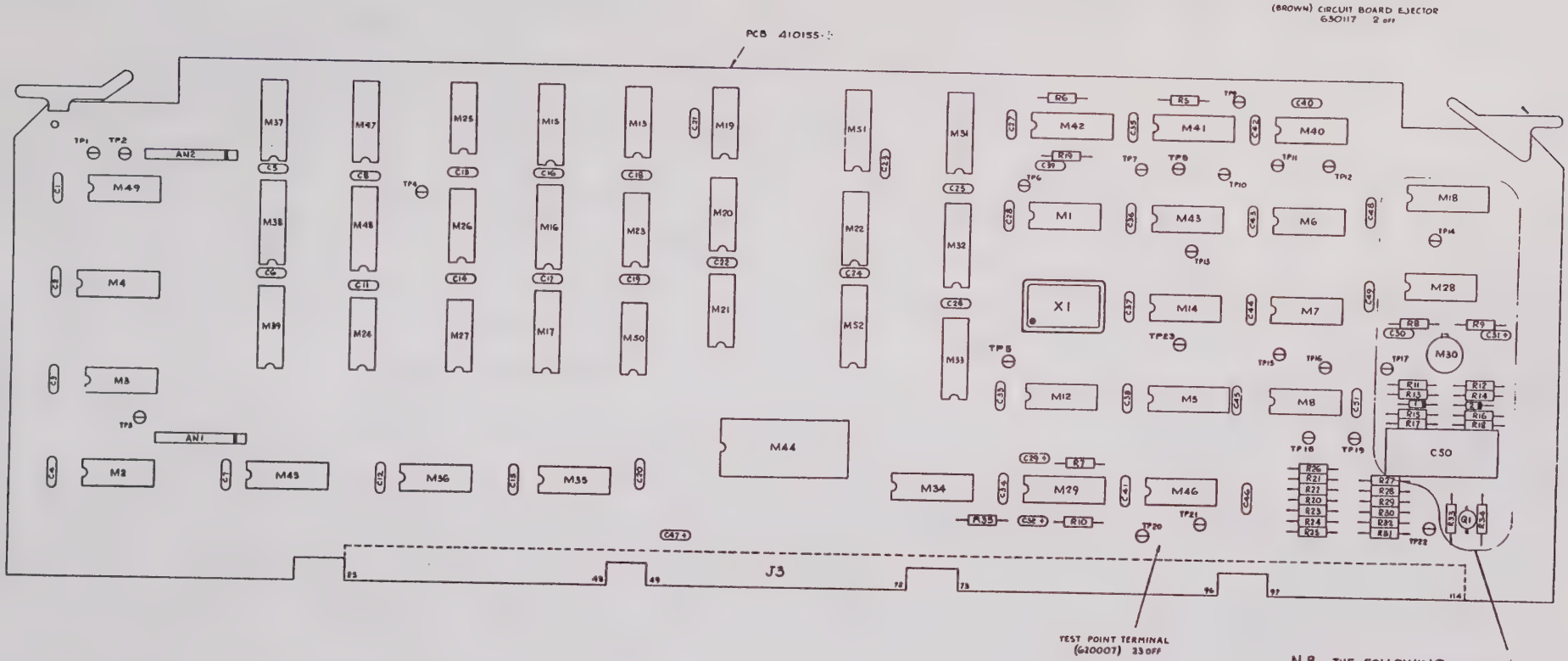
datron INSTRUMENTS

Circuit Diagram No. 430570--1.0 Sheet 2 © Datron Instruments 1986

 © Datron Instruments 1986

ANALOG INTERFACE ASSEMBLY

datron INSTRUMENTS 4200

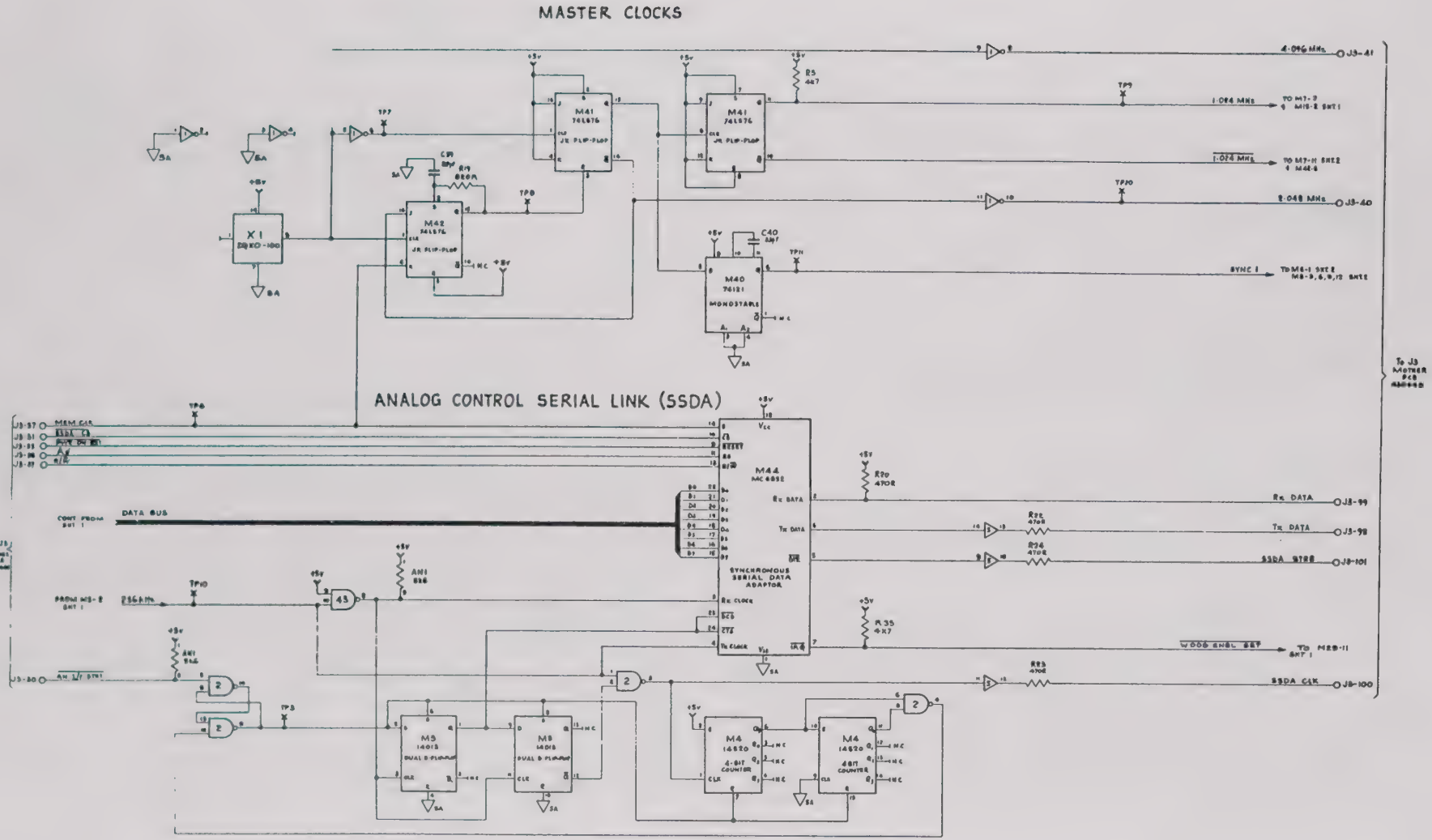


TEST POINT TERMINAL
(620007) 23 OFF

N.B. THE FOLLOWING COMPONENTS NOT FITTED :- R8,R9,R11-R18, R33,R34, C30,C31,C50, D1,D2, G1, M18,M28,M30 TP14

MOUNTING IC's.			
Nº WAYS	PART Nº	USED TO MOUNT	Nº OFF
14	605060/A	1-3, 6-8, 12-14, 19-27, 35, 36, 40, 43, 46, 49 & 50	25
16	605061/A	4-5, 15-17, 29, 31-34, 37-39, 41, 42, 45, 47, 48, 51, 52	20
24	605064/A	44	1

M9 - M11 NOT USED



ANALOG INTERFACE ASSEMBLY

Master Clocks and
Analog Control Serial Link

4200

datron INSTRUMENTS

Circuit Diagram No. 430570--1.0 Sheet 3 © Datron Instruments 1986

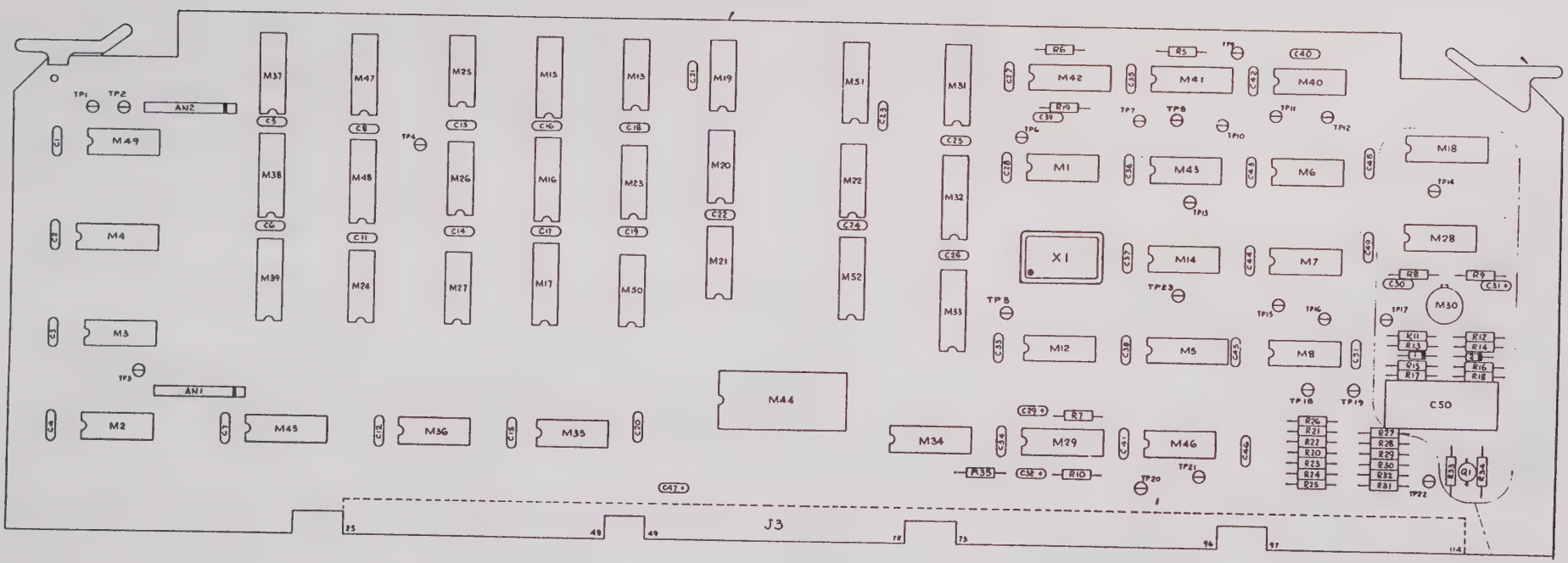
 © Datron Instruments 1986

ANALOG INTERFACE ASSEMBLY

datron INSTRUMENTS 4200

(BROWN) CIRCUIT BOARD EJECTOR G50117 2 off

PCB 410155-

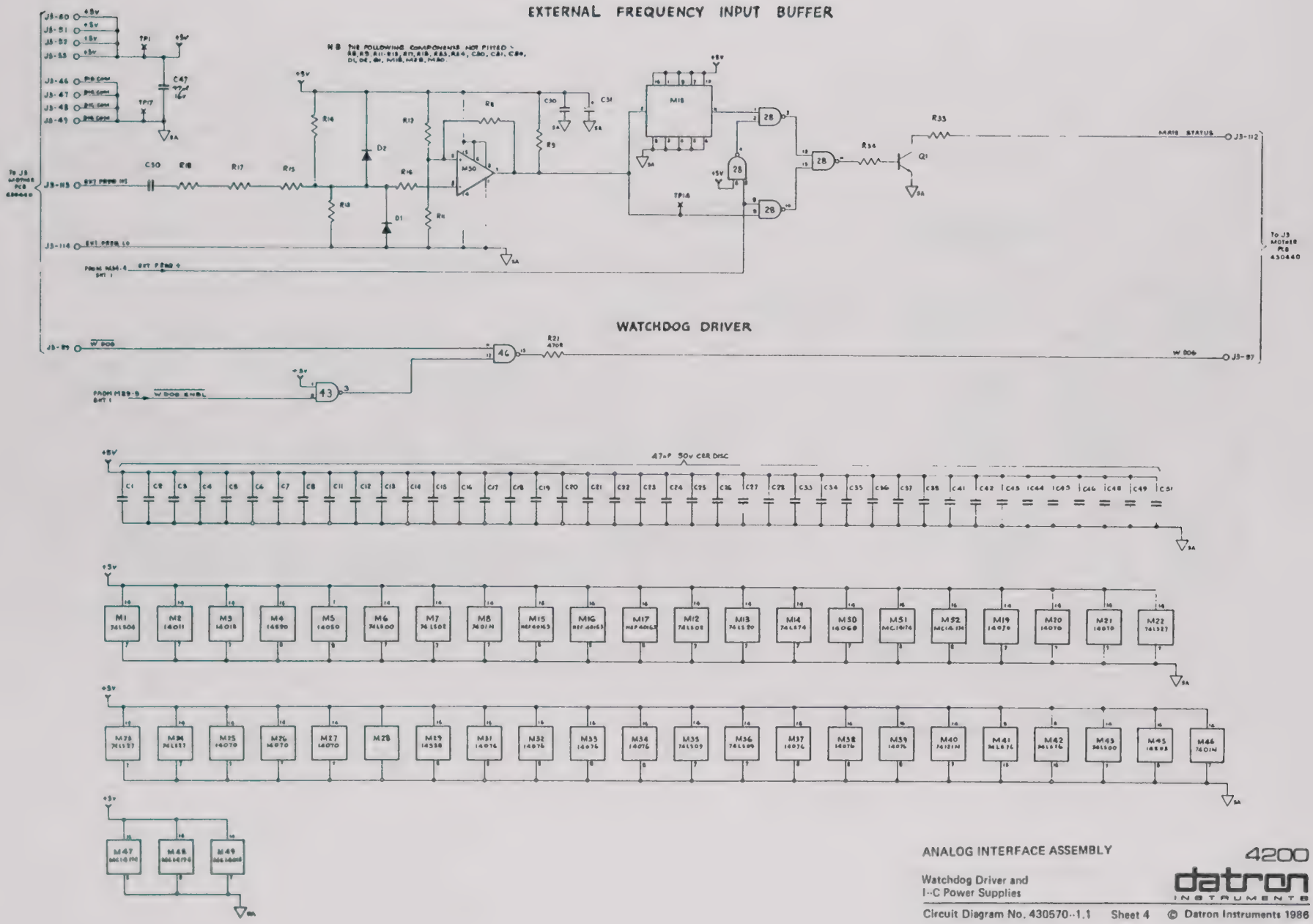


TEST POINT TERMINAL (620007) 23 off

N.B. THE FOLLOWING COMPONENTS NOT FITTED :- R8, R9, R11-R18, R33, R34, C30, C31, C50, D1, D2, G1, M18, M28, M30, TP14

MOUNTING IC's			
N° WAYS	PART N°	USED TO MOUNT	N° OFF
14	605060/A	1-3, 6-8, 12-14, 18-27, 35, 36, 40, 43, 46, 49 & 50	25
16	605061/A	4-5, 15-17, 29, 31-34, 37-39, 41, 42, 45, 47, 48, 51, 52	20
24	605064/A	44	1

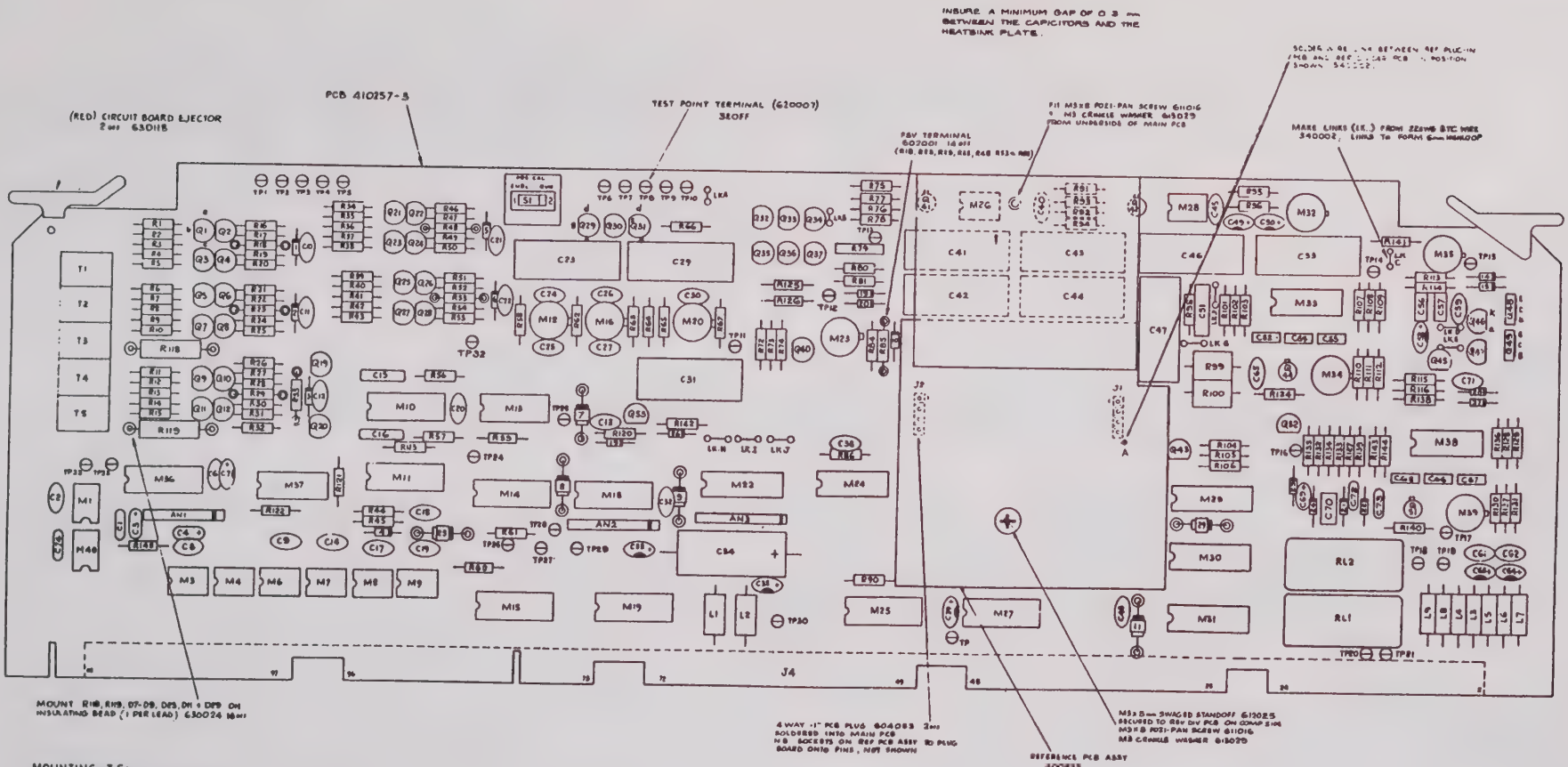
M9 - M11 NOT USED


EXTERNAL FREQUENCY INPUT BUFFER
WATCHDOG DRIVER
ANALOG INTERFACE ASSEMBLY
4200
Watchdog Driver and
I²C Power Supplies
Circuit Diagram No. 430570-1.1 Sheet 4 © Datron Instruments 1986
7.3-4

 © Datron Instruments 1986

REFERENCE DIVIDER ASSEMBLY

datron INSTRUMENTS 4200

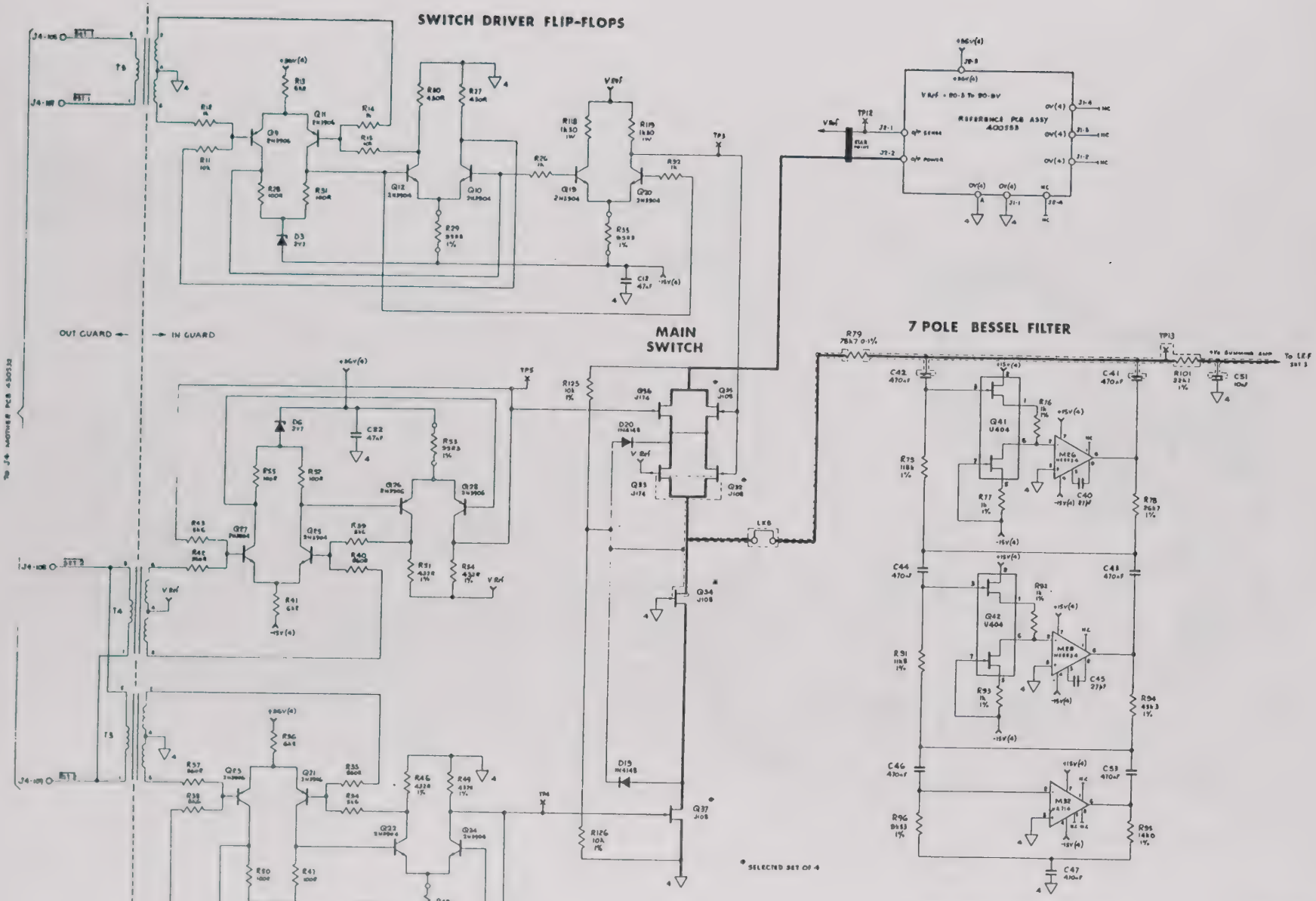

INSURE A MINIMUM GAP OF 0.3 mm BETWEEN THE CAPACITORS AND THE HEATSINK PLATE.
(RED) CIRCUIT BOARD EJECTOR 2 off 630118
PCB 410257-3
TEST POINT TERMINAL (620007) 38 OFF
P&V TERMINAL 602001 16 off (R18, R19, R20, R21, R22 R23 not fitted)
Fit M3x8 POZI-PAN SCREW 611016 & M3 CRINKLE WASHER 613029 FROM UNDERSIDE OF MAIN PCB
MAKE LINKS (LK..) FROM 22AWG STC WIRE 340002, LINKS TO FORM 6mm LOOP
J4
J3
J1
J2
RL1
RL2
MOUNT R18, R19, D7-D9, D13, D14 & D19 ON INSULATING BEAD (1 PER LEAD) 630024 16 off
4 WAY 1" PCB PLUG 604083 2 off SOLDERED INTO MAIN PCB
NB SOCKETS ON REF PCB ASSY TO PLUG BOARD ONTO PINS, NOT SHOWN
REFERENCE PCB ASSY 400411
M3 x 8mm SWAGED STANDOFF 613025 SECURED TO REF DIV PCB ON COMP SIDE
M3 x 8 POZI-PAN SCREW 611016
M3 CRINKLE WASHER 613029

MOUNTING ICs

FIT M1, M2 M4, M6 – M9, M40, M26, M28, ON 8 WAY DIL SOCKET 605059 10 off

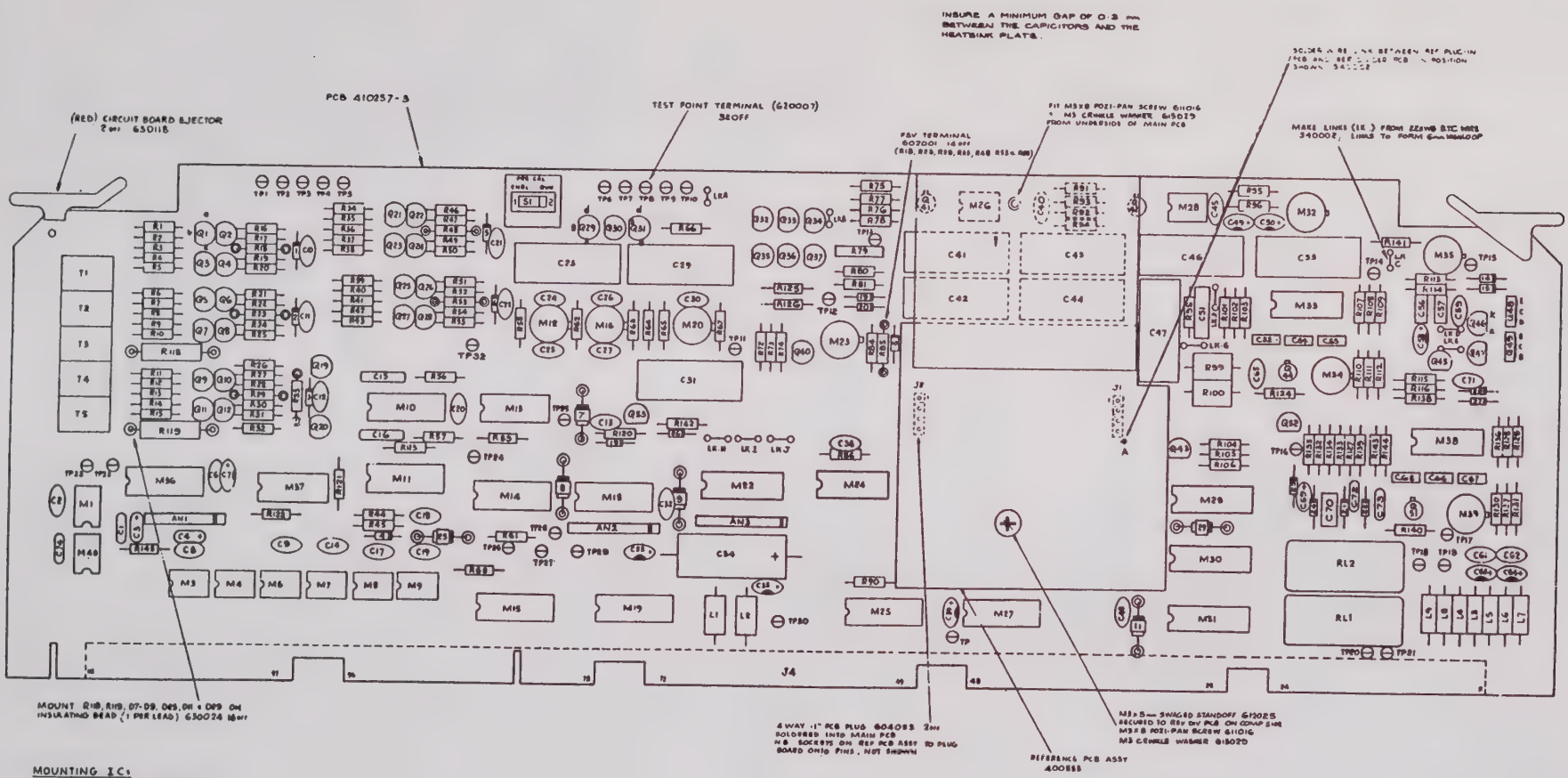
FIT M15, M29, M35, M37, M38, ON 14 WAY DIL SOCKET 605060 5 off

FIT M10, M11, M14, M16, , M18, M19, M22, M23, M27 M29, M30, M31 M36 ON 16 WAY DIL SOCKET 605061 13 off


SWITCH DRIVER FLIP-FLOPS
MAIN SWITCH
7 POLE BESSEL FILTER
OUT GUARD
IN GUARD
REFERENCE DIVIDER ASSEMBLY
4200
Most-Significant Switch and Filter
datron INSTRUMENTS
Circuit Diagram No. 430535-70 Sheet 1
© Datron Instruments 1986
7.4-1

REFERENCE DIVIDER ASSEMBLY

datron INSTRUMENTS 4200

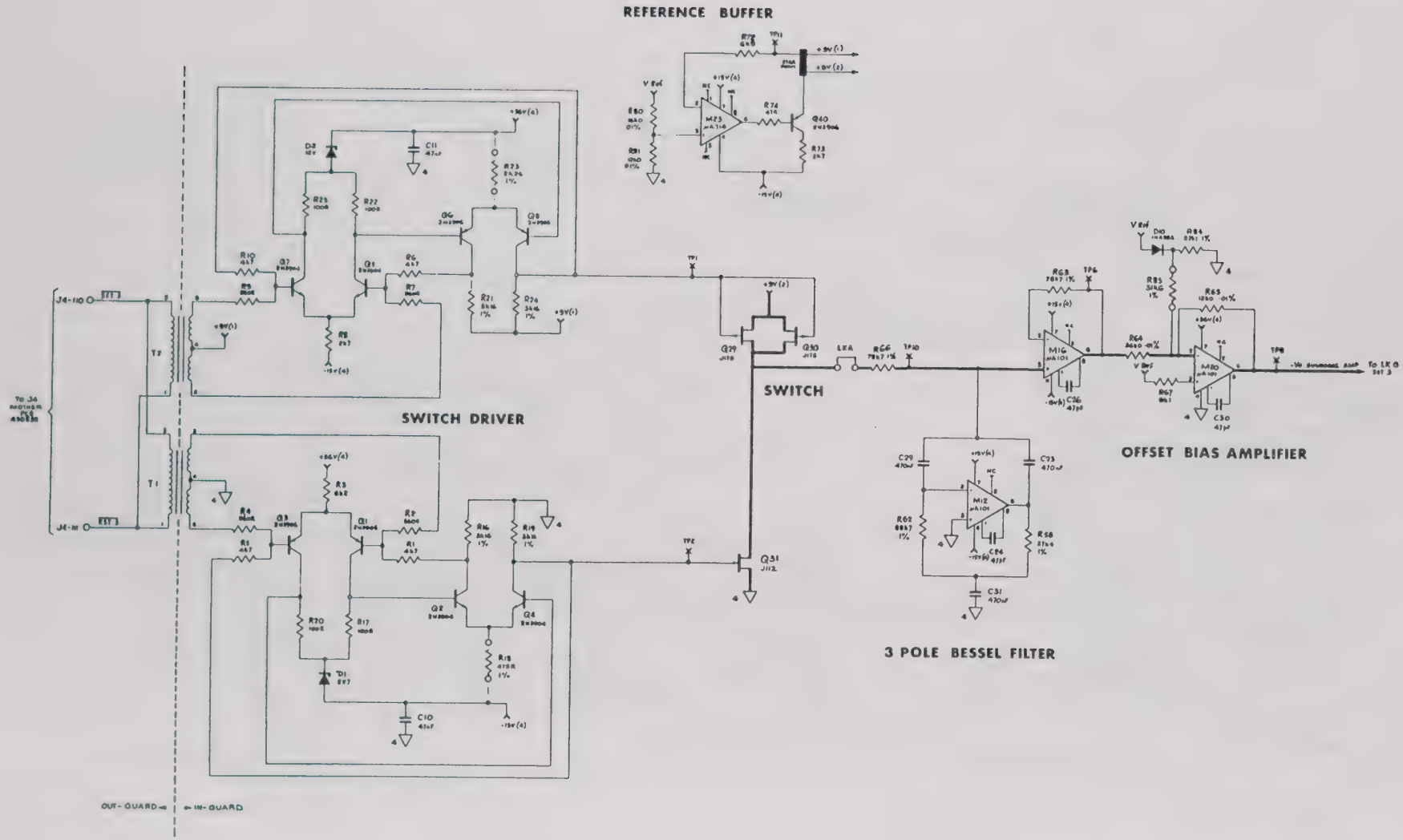

INSURE A MINIMUM GAP OF 0.3 mm BETWEEN THE CAPACITORS AND THE HEATSINK PLATE.
(RED) CIRCUIT BOARD EJECTOR 2 off 650118
PCB 410257-3
TEST POINT TERMINAL (620007) 32OFF
P&V TERMINAL 602001 16 off (R18, R19, R18, R68, R68 R134, R88)
FIT M3X8 POZI-PAN SCREW 611016 & M3 CRINKLE WASHER 615029 FROM UNDERSIDE OF MAIN PCB
MAKE LINKS (LR) FROM 22AWG BTC WIRE 340002, LINKS TO FORM 6mm LOOP
MOUNT R18, R19, D7-D9, D65, D4 & D89 ON INSULATING BEAD (1 PER LEAD) 630024 18 off
6 WAY .1" PCB PLUG 604083 2 off POLORISED INTO MAIN PCB N.B. SOCKETS ON REF PCB ASSY TO PLUG BOARD ONTO PINS, NOT SHOWN
M3x5mm SWAGED STANDOFF 613025 SECURED TO REF DIV PCB ON COMP SIDE M3X8 POZI-PAN SCREW 611016 M3 CRINKLE WASHER 615029
REFERENCE PCB ASSY 400555
J4

MOUNTING ICs

FIT M1, M3 M4, M6 – M9, M40, M36, M38, ON 8 WAY DIL SOCKET 605039 10 off

FIT M18, M29 M35, M37, M38 ON 16 WAY DIL SOCKET 605060 5 off

FIT M10, M11, M14, M15, M18, M18, M18, M22, M28, M27 M29, M30, M31 M34 ON 18 WAY DIL SOCKET 605061 13 off



REFERENCE DIVIDER ASSEMBLY

Least-Significant
Switch and Filter

4200

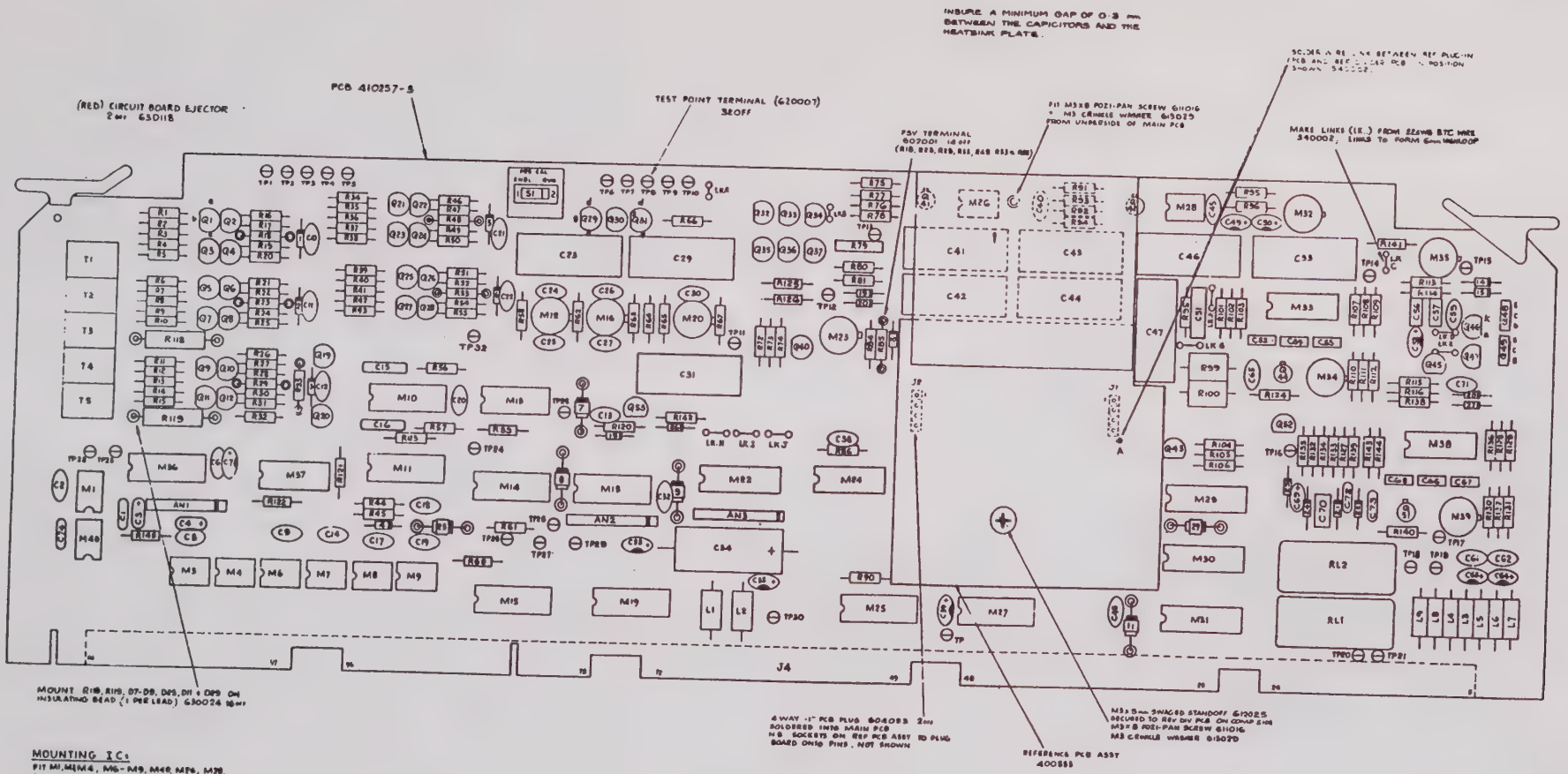
datron INSTRUMENTS

Circuit Diagram No. 430535-7.0 Sheet 2 © Datron Instruments 1986

 © Datron Instruments 1986

REFERENCE DIVIDER ASSEMBLY

datron INSTRUMENTS 4200

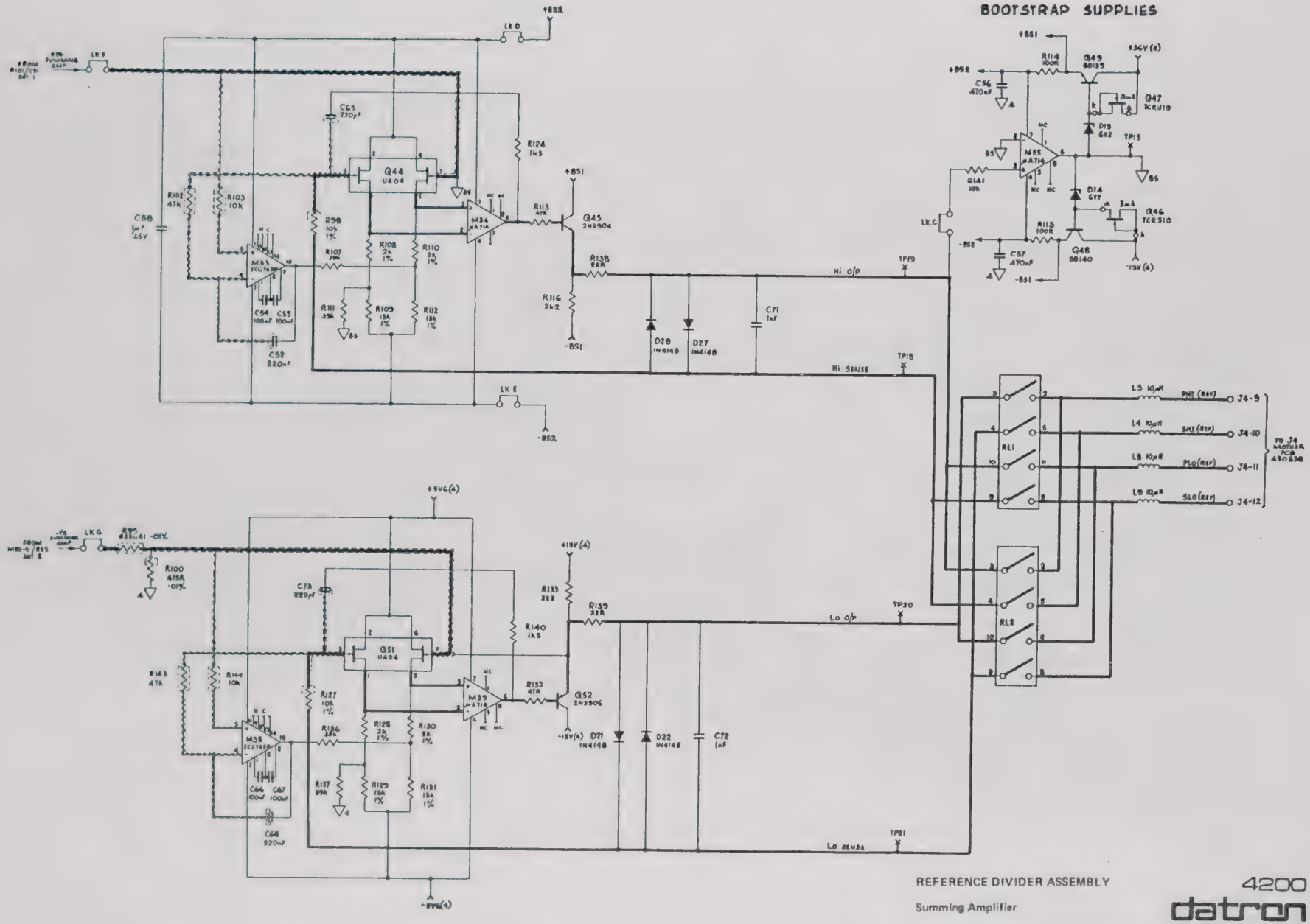

INSURE A MINIMUM GAP OF 0.3 mm BETWEEN THE CAPACITORS AND THE HEATSINK PLATE.
(RED) CIRCUIT BOARD EJECTOR 2 off 650118
PCB 410257-3
TEST POINT TERMINAL (620007) 32 OFF
FIT M3x8 POZI-PAN SCREW 611016 + M3 CRINKLE WASHER 615029 FROM UNDERSIDE OF MAIN PCB
P3V TERMINAL 602001 (4 off) (R18, R23, R28, R33, R48 R53 & R88)
MAKE LINKS (LK..) FROM 22AWG BTC WIRE 340002, LINKS TO FORM 6mm LOOP
MOUNT R18, R19, D7-D9, D25, D11 & D29 ON INSULATING BEAD (1 PER LEAD) 630024 16 off
4 WAY 'I' PCB PLUG 604083 2 off SOLDERED INTO MAIN PCB NB SOCKETS ON REF PCB ASSY TO PLUG BOARD ONTO PINS, NOT SHOWN
M3x5mm SWAGED STANDOFF 612025 SECURED TO REF DIV PCB ON COMP SIDE M3x8 POZI-PAN SCREW 611016 M3 CRINKLE WASHER 615029
REFERENCE PCB ASSY 400555
J4

MOUNTING ICs

FIT M1, M2, M4, M5 - M9, M40, M46, M48, M49, ON 8 WAY DIL SOCKET 605059 10 off

FIT M13, M34 M35, M37, M38 ON 16 WAY DIL SOCKET 605060 5 off

FIT M10, M11, M14, M15, M17, M18, M19, M22, M33, M27 M29, M30, M31, M36, ON 14 WAY DIL SOCKET 605061 13 off



REFERENCE DIVIDER ASSEMBLY

Summing Amplifier

4200

datron INSTRUMENTS

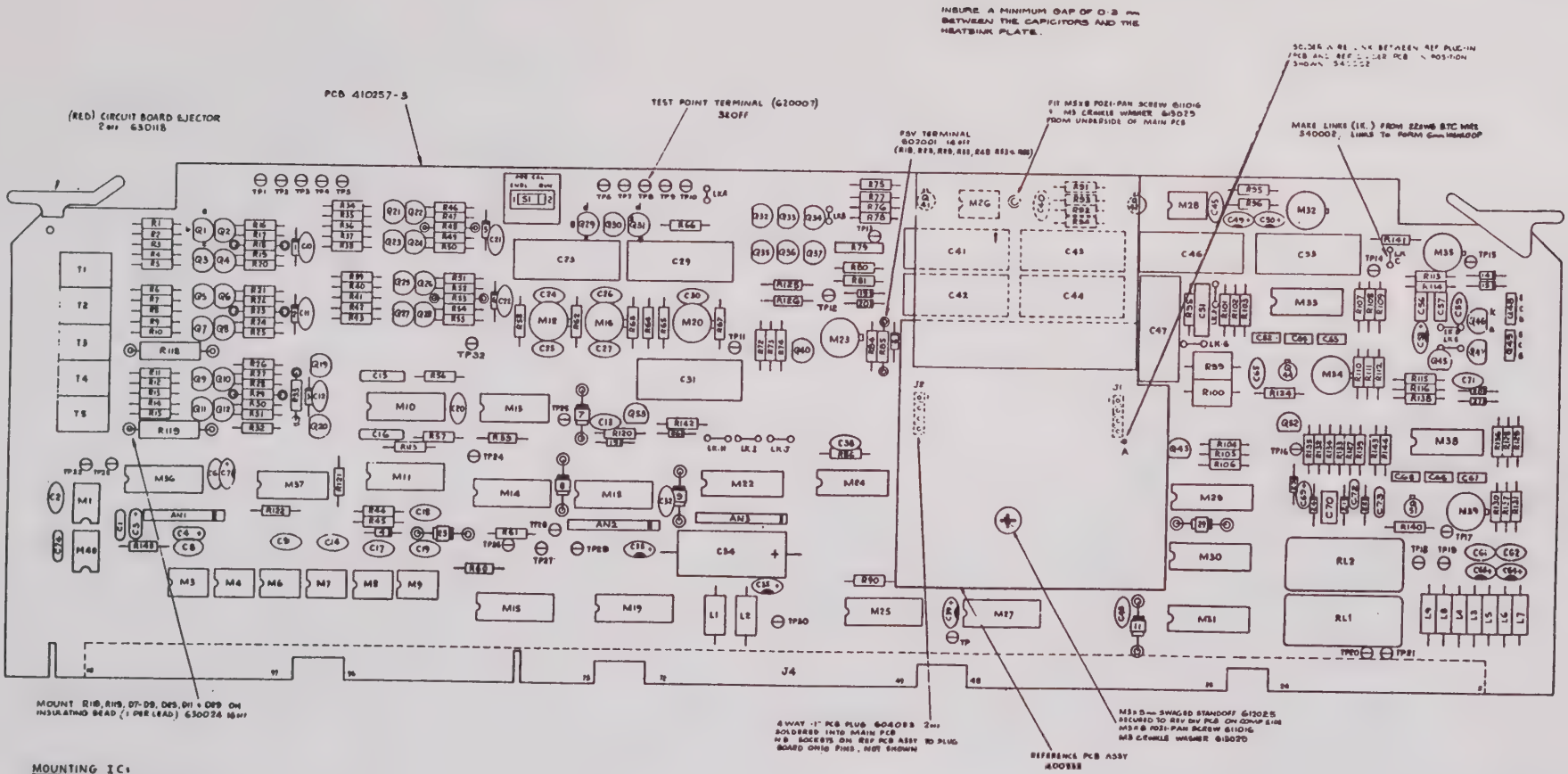
Circuit Diagram No. 430535--7.0 Sheet 3

© Datron Instruments 1986

 © Datron Instruments 1988

REFERENCE DIVIDER ASSEMBLY

datron INSTRUMENTS 4200

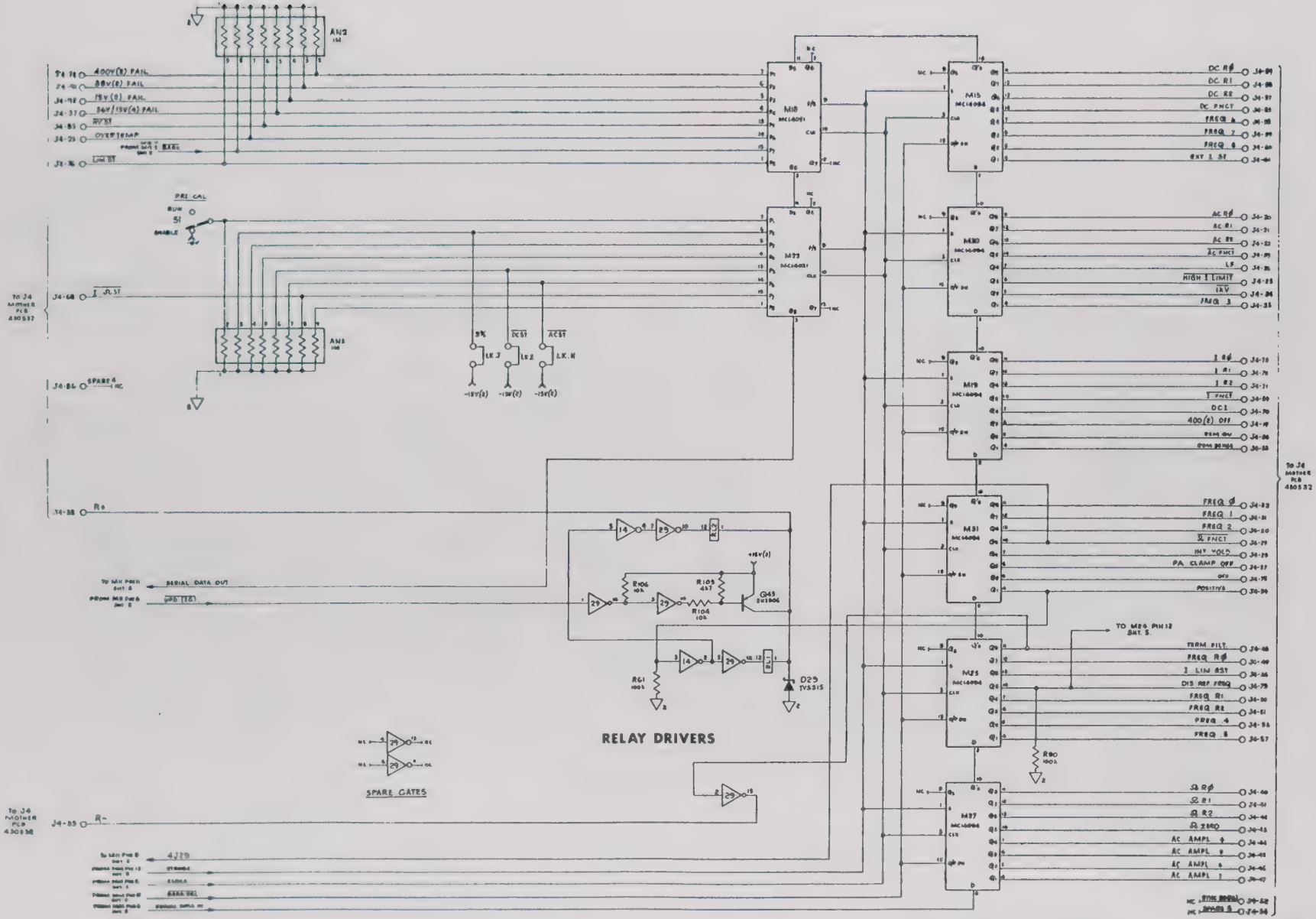

INSURE A MINIMUM GAP OF 0.2 mm BETWEEN THE CAPACITORS AND THE HEATSINK PLATE.
(RED) CIRCUIT BOARD EJECTOR 2 off 630118
PCB 410257-3
TEST POINT TERMINAL (620007) 38 OFF
P8V TERMINAL 602001 16 off (R18, R28, R19, R35, R48 R54 & R88)
FIT M3x8 POZI-PAN SCREW 611016 & M3 CRINKLE WASHER 613025 FROM UNDERSIDE OF MAIN PCB
MAKE LINKS (LK.) FROM 22AWG BTC WIRE 540002, LINKS TO FORM 6mm HEADLOOP
MOUNT R18, R19, D7-D9, D85, D11 & D89 ON INSULATING BEAD (1 PER LEAD) 630024 16 off
4 WAY .1" PCB PLUG 604093 2 off SOLDERED INTO MAIN PCB. N.B. SOCKETS ON REF PCB ASSY TO PLUG BOARD ONTO PINS, NOT SHOWN
M3x5mm SWAGED STANDOFF 612025 SECURED TO REF DIV PCB ON COMP SIDE M3x8 POZI-PAN SCREW 611016 M3 CRINKLE WASHER 613020
REFERENCE PCB ASSY A00588
J4

MOUNTING ICs

FIT M1, M2 M4, M6 - M9, M40, M26, M28, ON 8 WAY DIL SOCKET 609039 10 off

FIT M10, M24 M33, M37, M38 ON 16 WAY DIL SOCKET 609060 9 off

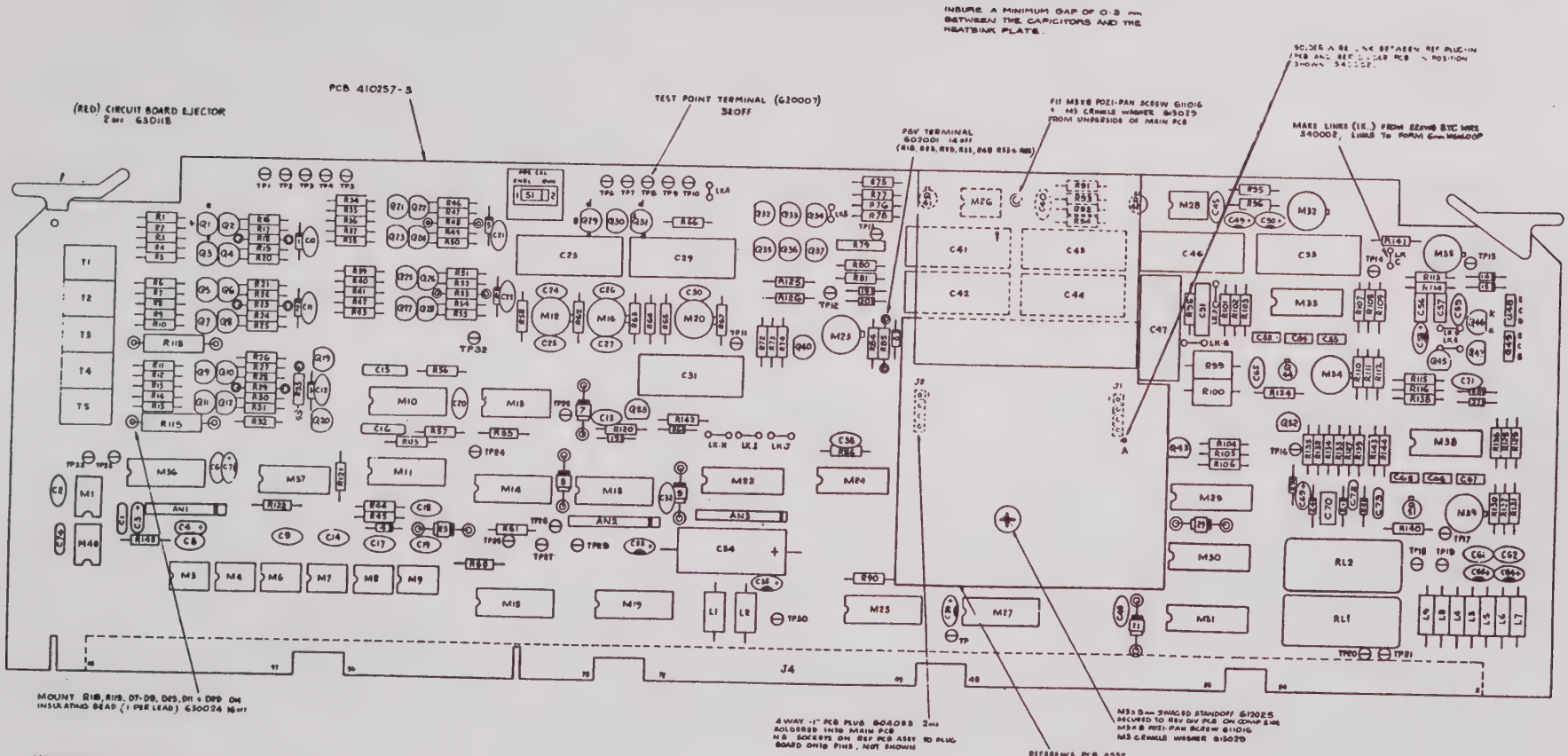
FIT M10, M11, M14, M15, M18, M19, M22, M23, M25, M27, M29, M30, M31 M36 ON 14 WAY DIL SOCKET 609061 13 off


RELAY DRIVERS
SPARE GATES
REFERENCE DIVIDER ASSEMBLY
4200
Serial/Parallel
Data Converter
Circuit Diagram No. 430535-7.0 Sheet 4
© Datron Instruments 1986
7.4-4

 © Datron Instruments 1986

REFERENCE DIVIDER ASSEMBLY

datron INSTRUMENTS 4200

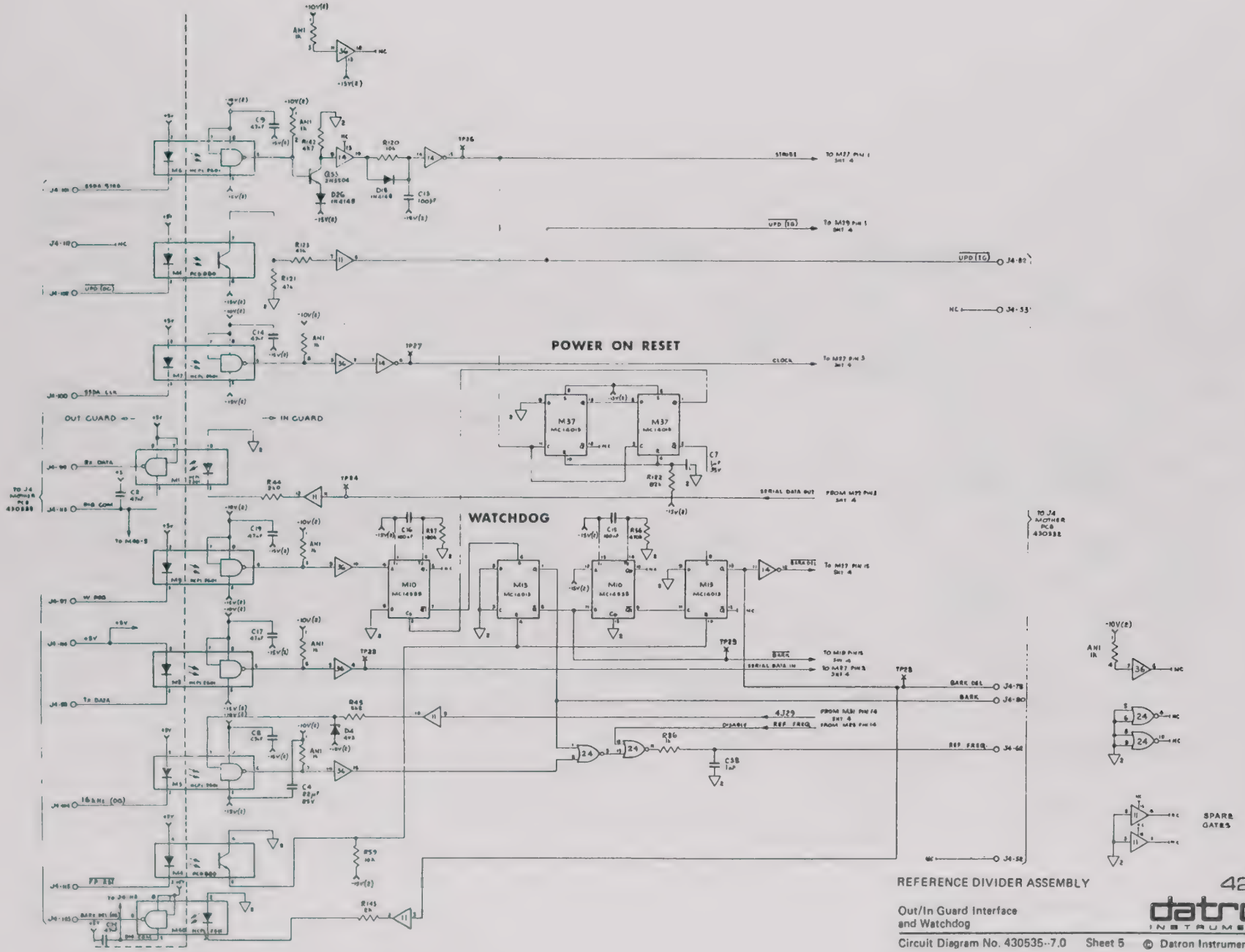

INSURE A MINIMUM GAP OF 0.3 mm BETWEEN THE CAPICITORS AND THE HEATSINK PLATE.
PCB 410257-3
(RED) CIRCUIT BOARD EJECTOR 2 off 630118
TEST POINT TERMINAL (620007) 34 OFF
FIT M3X8 POZI-PAN SCREW 611016 + M3 CRINKLE WASHER 615019 FROM UNDERSIDE OF MAIN PCB
P&V TERMINAL 607001 14 off (R18, R88, R19, R11, R48 R33 & R88)
MAKE LINKS (LK..) FROM 22AWG BTC WIRE 340002, LINKS TO FORM 6mm LOOP
MOUNT R18, R19, D7-D8, D85, D11 & D88 ON INSULATING BEAD (1 PER LEAD) 630024 16 off
4 WAY -1" PCB PLUG 604003 2 off SOLDERED INTO MAIN PCB N.B. SOCKETS ON REF PCB ASSY TO PLUG BOARD ONTO PINS, NOT SHOWN
M3 x 8mm SWAGED STANDOFF 612025 SECURED TO REF DIV PCB ON COMPONENT SIDE M3 x 8 POZI-PAN SCREW 611016 M3 CRINKLE WASHER 615020
REFERENCE PCB ASSY 400888
J4

MOUNTING ICs

FIT M1, M2 M4, M6 – M9, M40 M26, M28, ON 8 WAY DIL SOCKET 603059 10 off

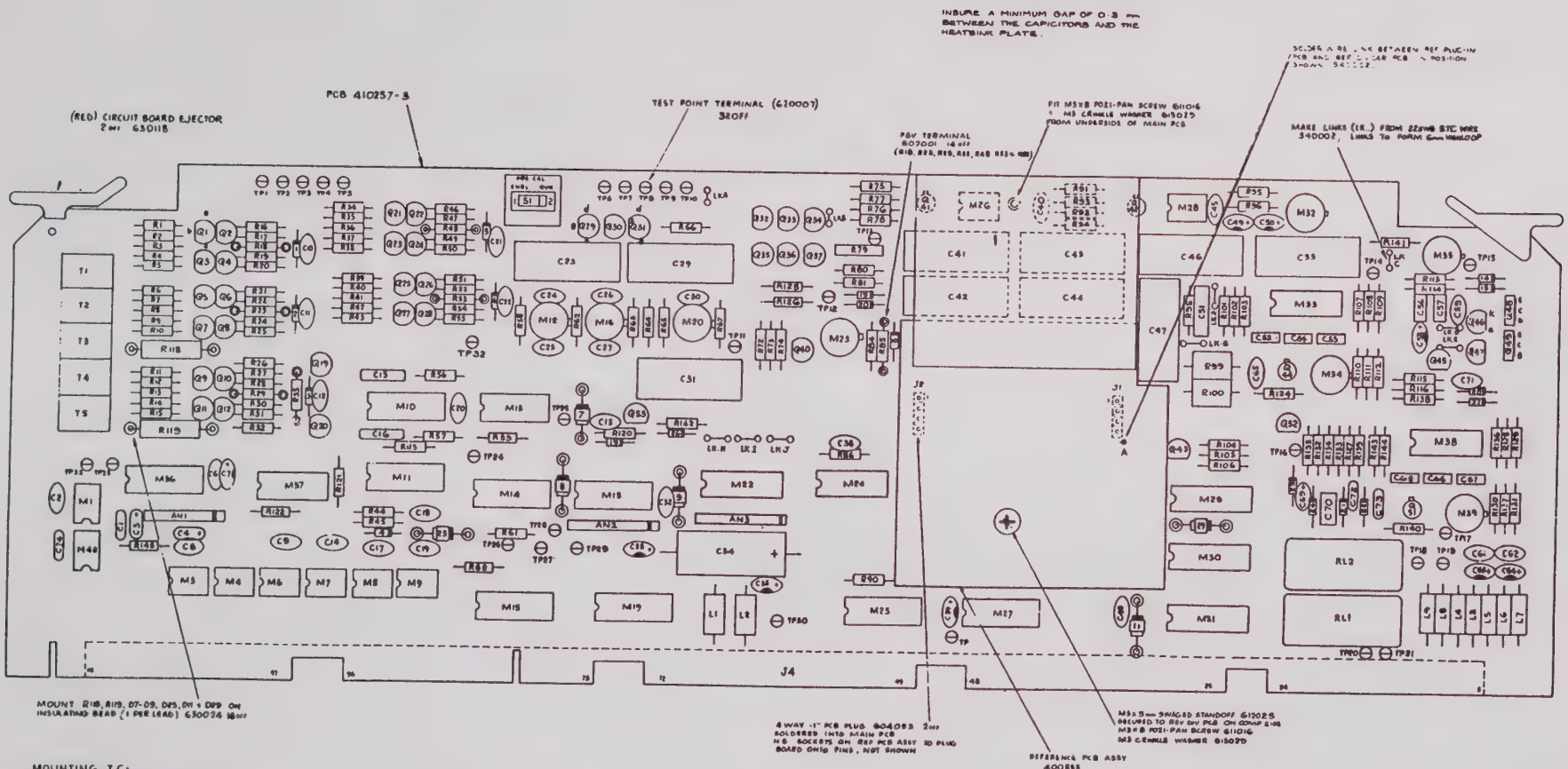
FIT M15, M20 M22, M27, M38 ON 14 WAY DIL SOCKET 603060 5 off

FIT M10, M11, M12, M13, M14, M16, M17, M18, M19, M21, M23, M24, M25, M29, M30, M31, M32, M33, M34, M35, M36, M37 ON 16 WAY DIL SOCKET 603061 19 off


POWER ON RESET
WATCHDOG
OUT GUARD
IN GUARD
SPARE GATES
REFERENCE DIVIDER ASSEMBLY
4200
Out/In Guard Interface and Watchdog
Circuit Diagram No. 430535--7.0 Sheet 5
© Datron Instruments 1986

REFERENCE DIVIDER ASSEMBLY

datron INSTRUMENTS 4200

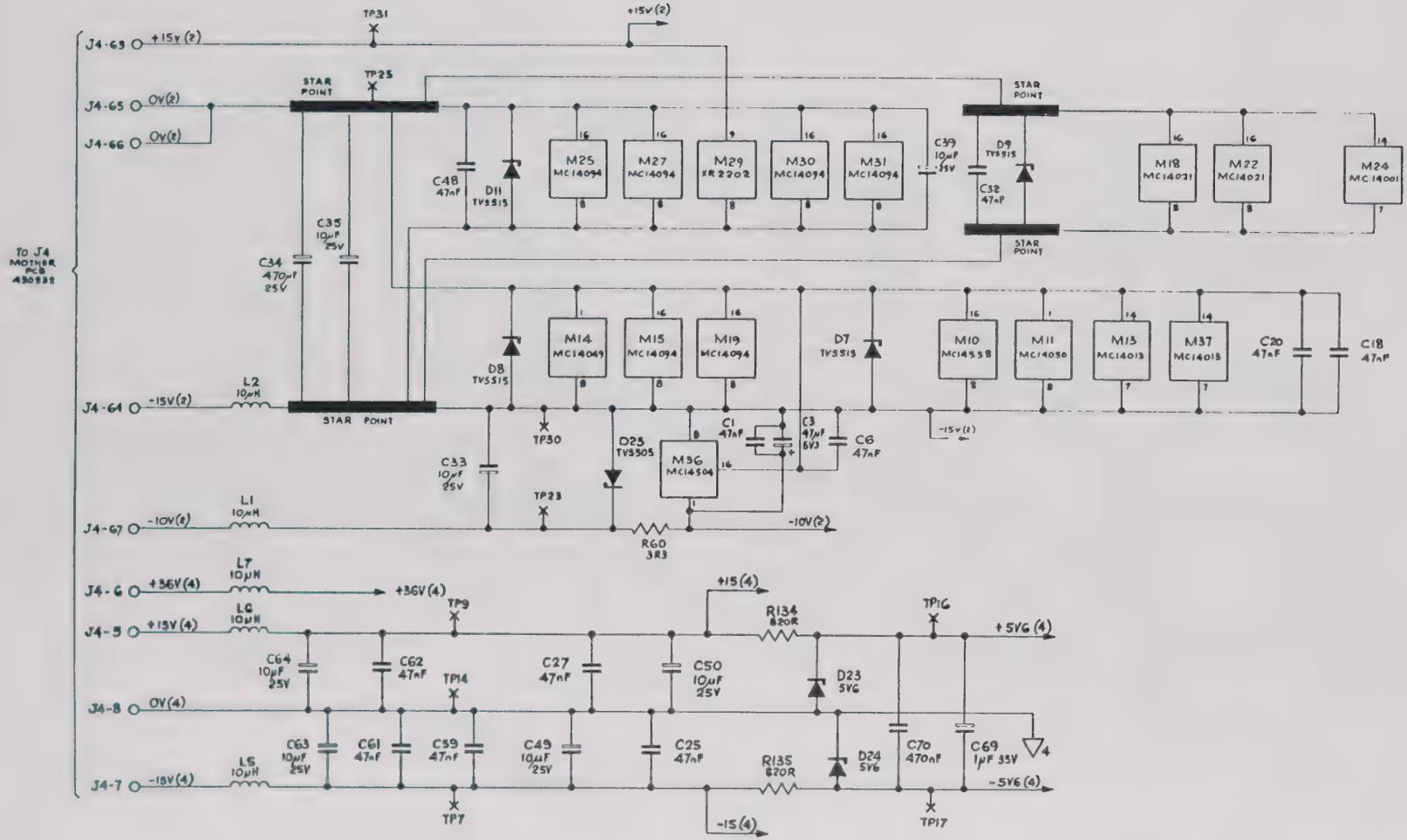

INSURE A MINIMUM GAP OF 0.3 mm BETWEEN THE CAPACITORS AND THE HEATSINK PLATE.
PCB 410257-3
(RED) CIRCUIT BOARD EJECTOR 2 off 630118
TEST POINT TERMINAL (620007) 38 OFF
P&V TERMINAL 602001 14 off (R18, R28, R59, R68, R68 R69 & R88)
FIT M3x8 POZI-PAN SCREW 611016 & M3 CRINKLE WASHER 615029 FROM UNDERSIDE OF MAIN PCB
MAKE LINKS (LK..) FROM 22SWG BTC WIRE 540002, LINKS TO FORM 6mm LOOP
MOUNT R118, R119, D7-D9, D25, D11 & D29 ON INSULATING BEAD (1 PER LEAD) 630074 16 off
J4
4 WAY .1" PCB PLUG 604053 2 off SOLDERED INTO MAIN PCB NB SOCKETS ON REF PCB ASSY 10 PLUG BOARD ONLY PINS, NOT SHOWN
M3 x 5mm SWAGED STANDOFF 612025 SECURED TO REF DIV PCB ON COMP SIDE M3 x 8 POZI-PAN SCREW 611016 M3 CRINKLE WASHER 615029
REFERENCE PCB ASSY 400855

MOUNTING ICs

FIT M1, M2 M4, M6 - M9, M40, M26, M28, ON 8 WAY DIL SOCKET 605059 10 off

FIT M13, M24 M35, M37, M38 ON 14 WAY DIL SOCKET 605060 5 off

FIT M10, M11, M14, M15, , M16, M19, M22, M25, M27 M29, M30, M31 M36 ON 16 WAY DIL SOCKET 605061 13 off



REFERENCE DIVIDER ASSEMBLY

Power Supplies

4200

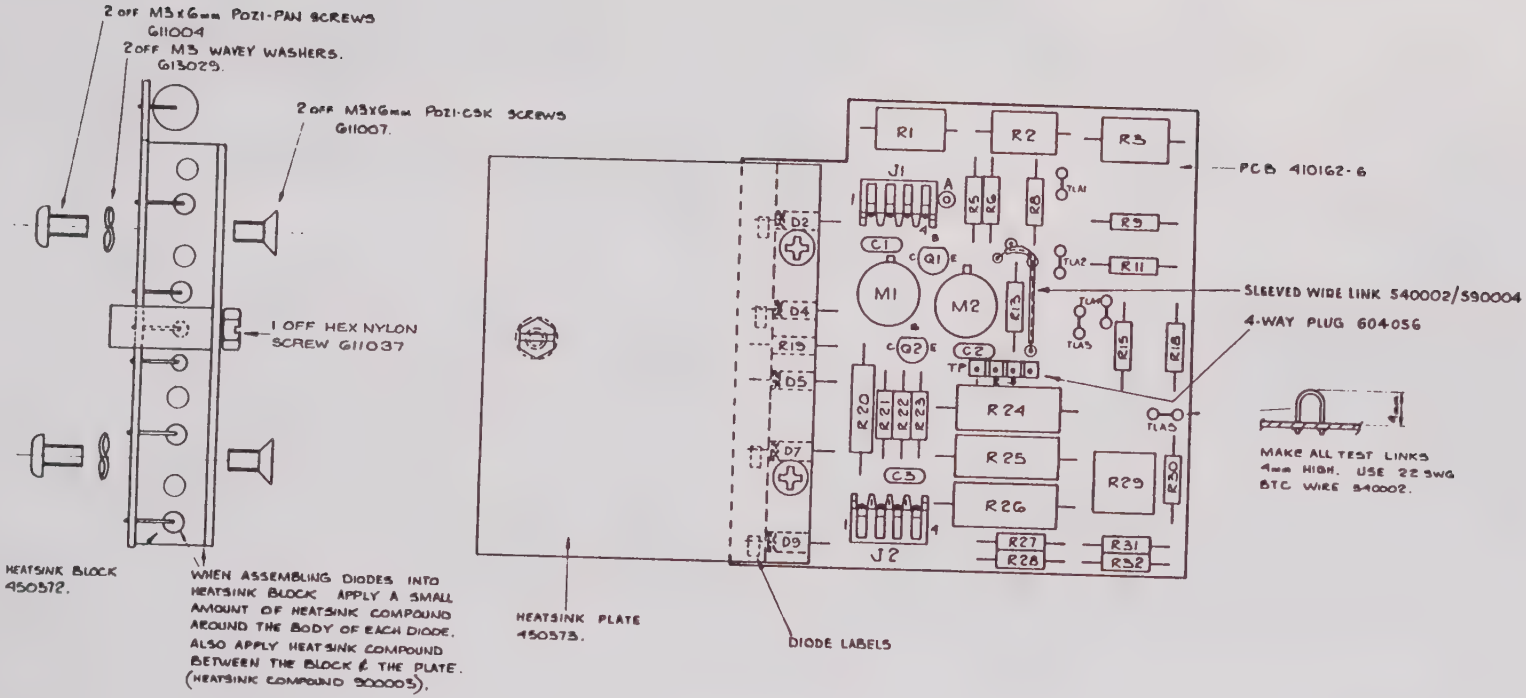
datron INSTRUMENTS

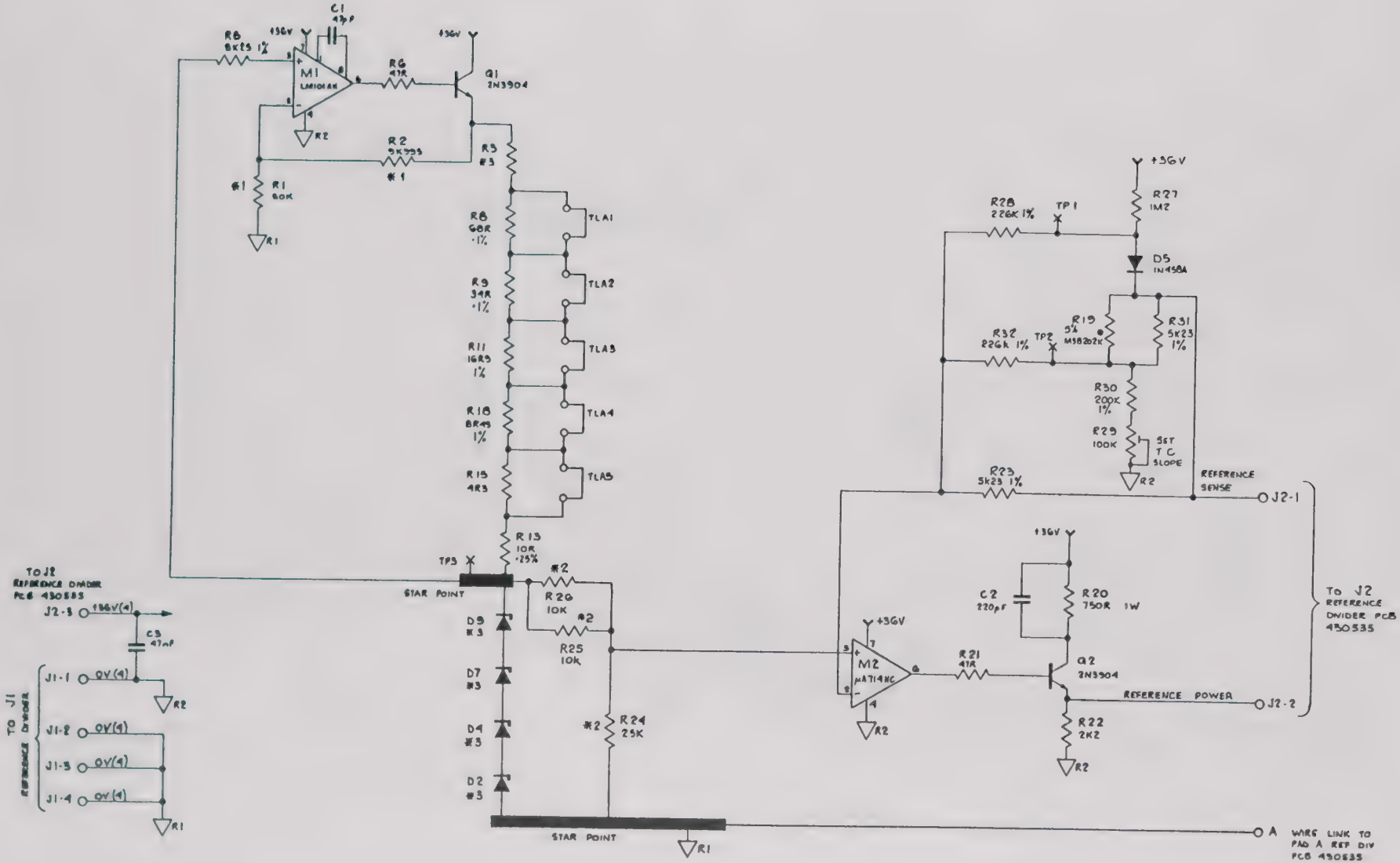
Circuit Diagram No. 430535-7.0 Sheet 6 © Datron Instruments 1986

 © Datron Instruments 1986

REFERENCE ASSEMBLY

datron INSTRUMENTS 4200





REFERENCE ASSEMBLY

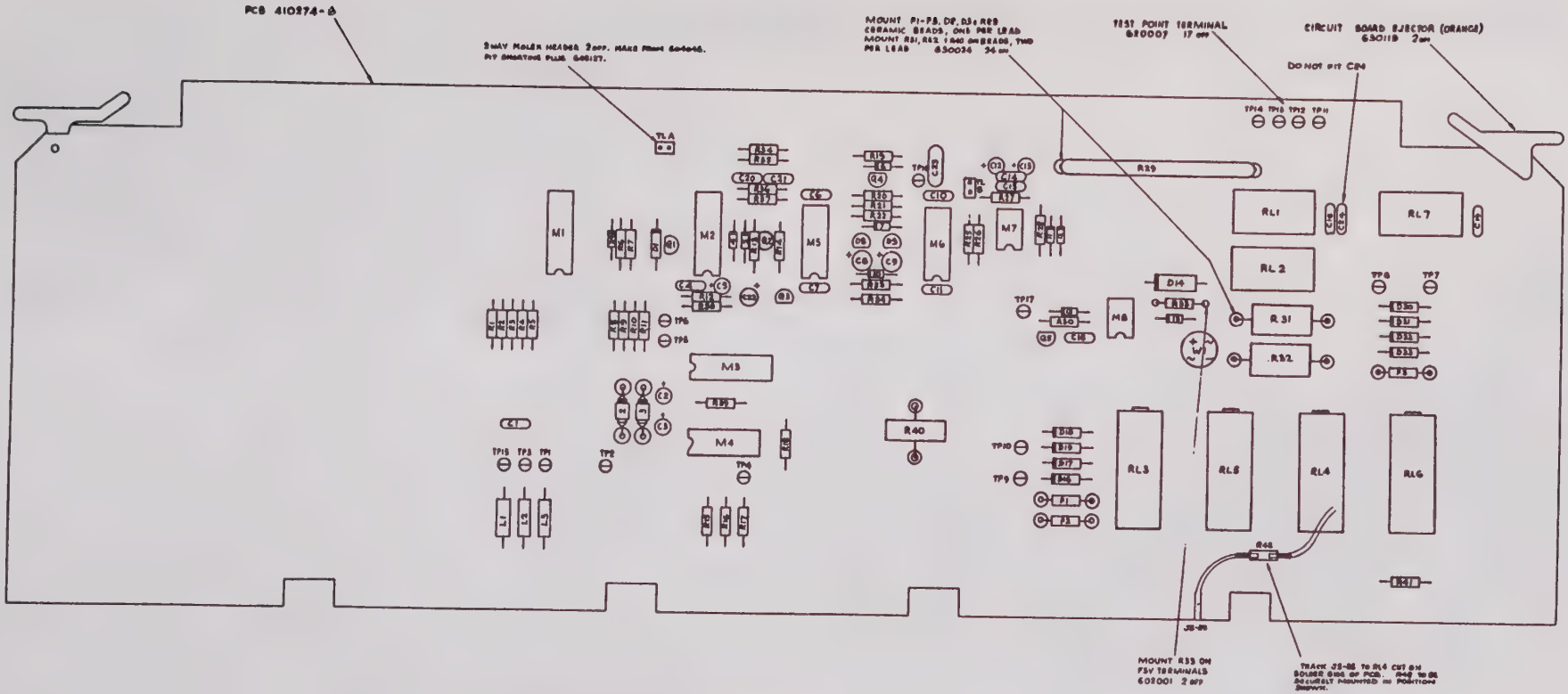
4200

datron INSTRUMENTS

Circuit Diagram No. 430553-2.0 Sheet 1 © Datron Instruments 1986

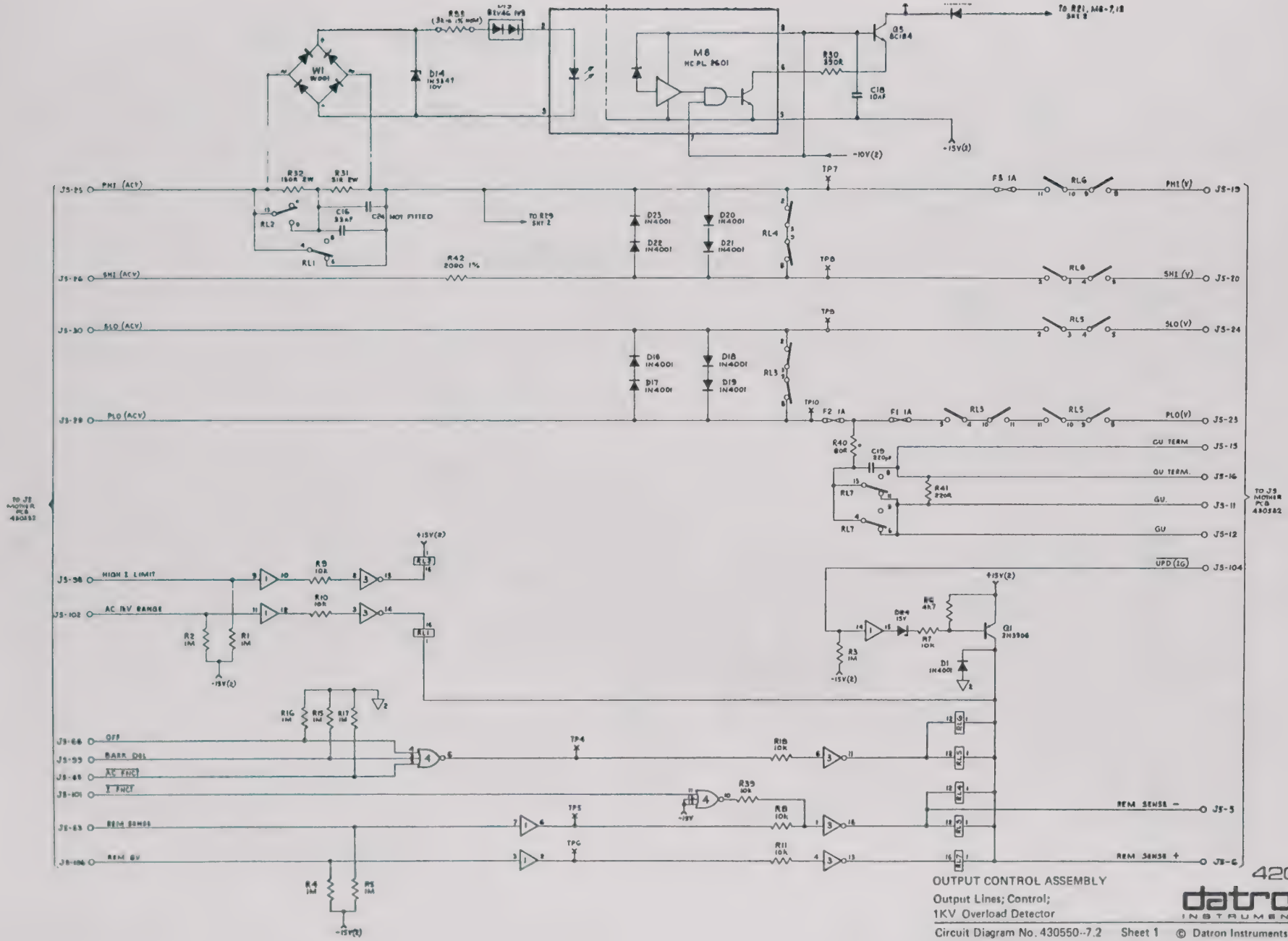
OUTPUT CONTROL ASSEMBLY

datron INSTRUMENTS 4200



MOUNTING ICs

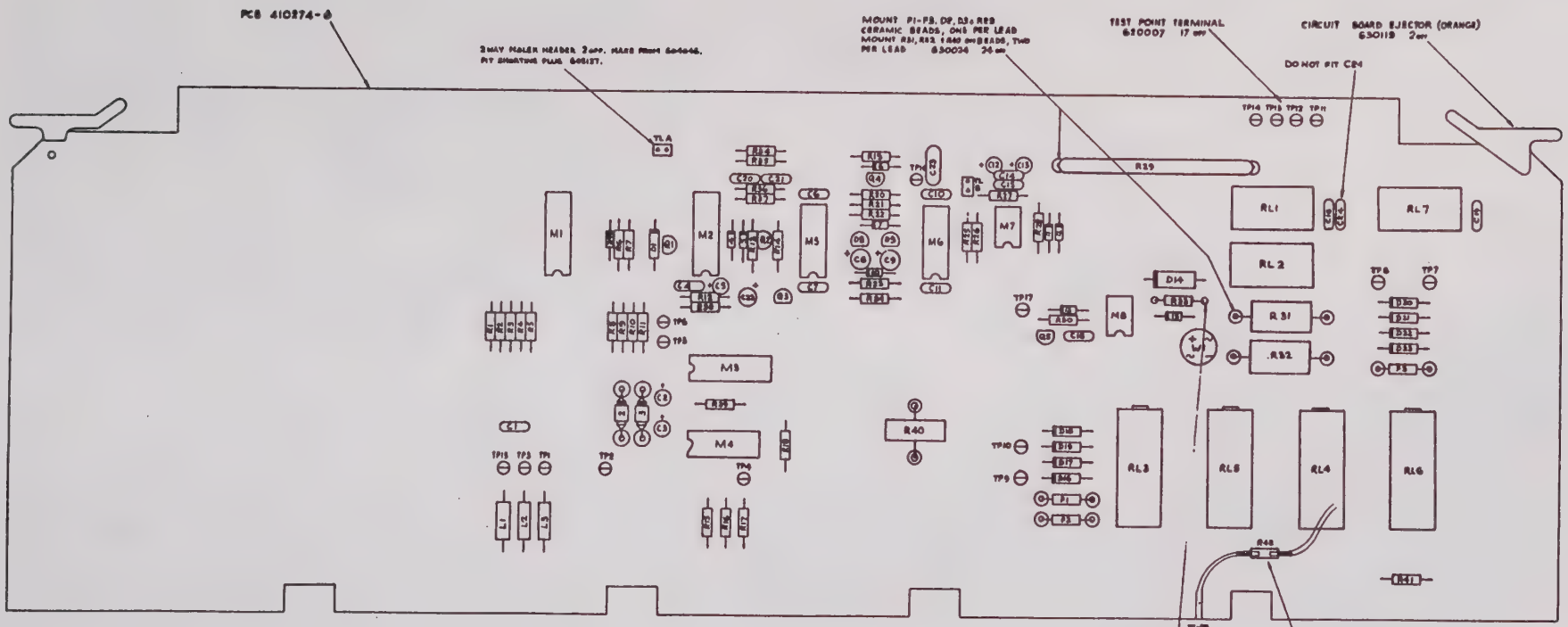
FIT M7 & M8 INTO 8-WAY DIL SOCKET 605059/A 2 OFF
FIT M4, M5 & M6 INTO 14-WAY DIL SOCKET 605060/A 3 OFF
FIT M1, M2 & M3 INTO 16-WAY DIL SOCKET 605061/A 3 OFF


W1 W005
D14 1N3347 10V
M8 HCPL 4601
Q5 BC184
R30 330R
C18 10nF
-10V(I)
+15V(I)
TO RPI, M8-7,18 SHT 2
J5-25 PMI (ACV)
R32 150R 2W
R31 51R 5W
C16 33nF
C24 NOT FITTED
RL2
RL1
TO R29 SHT 2
D23 1N4001
D22 1N4001
D20 1N4001
D21 1N4001
RL4
TP7
F3 1A
RL6
PMI(V)
J5-19
J5-26 SMI (ACV)
R42 2090 1%
TP8
SMI (V)
J5-20
J5-30 SLO (ACV)
TP9
RL5
SLO(V)
J5-24
D16 1N4001
D17 1N4001
D18 1N4001
D19 1N4001
RL3
J5-29 PLO (ACV)
TP10
F2 1A
F1 1A
PLO(V)
J5-23
R40 80R
C19 820pF
GU TERM
J5-15
GU TERM.
J5-16
RL7
R41 220R
GU.
J5-11
GU
J5-12
TO J8 MOTHER PCB 430552
TO J9 MOTHER PCB 430582
+15V(I)
J5-38 HIGH I LIMIT
R9 10R
J5-102 AC INV RANGE
R10 10R
R2 1M
R1 1M
-15V(I)
UPD(IG)
J5-104
R6 4K7
D44 15V
R7 10K
Q1 2N3906
R3 1M
D1 1N4001
R16 1M
R15 1M
R17 1M
J5-66 OFF
J5-55 BARR DEL
J5-65 AC FNCT
J5-101 Z FNCT
TP4
R18 10K
R39 10K
-15V
TP5
TP6
J5-63 REM SENSE-
J5-106 REM SV
R8 10K
R11 10K
REM SENSE -
J5-5
REM SENSE +
J5-6
R4 1M
R5 1M
4200
OUTPUT CONTROL ASSEMBLY
Output Lines; Control;
1KV Overload Detector
datron INSTRUMENTS
Circuit Diagram No. 430550-7.2 Sheet 1 © Datron Instruments 1986

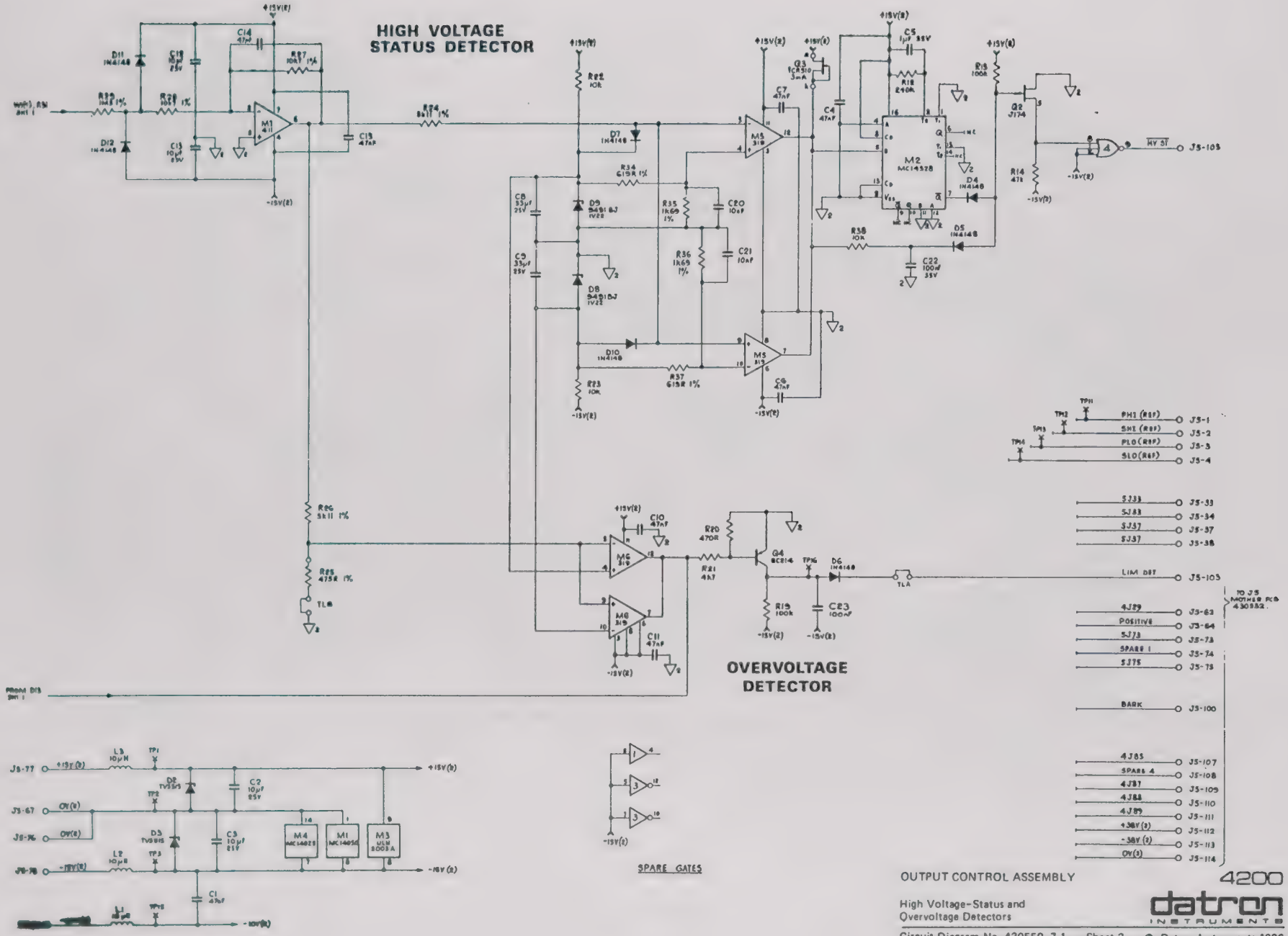
 © Datron Instruments 1986

datron INSTRUMENTS 4200

OUTPUT CONTROL ASSEMBLY



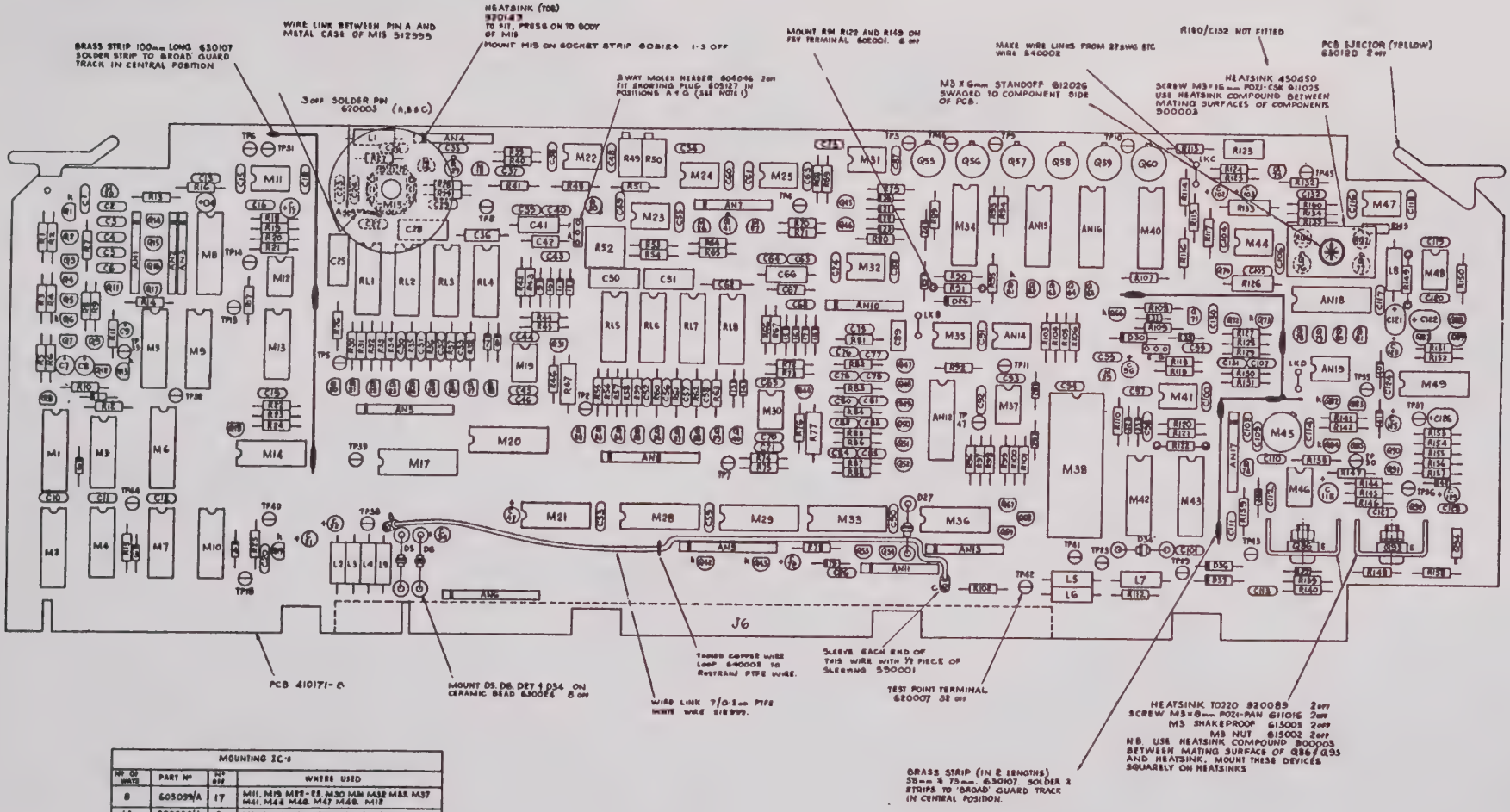
MOUNTING ICs
FIT M7 & M8 INTO 8-WAY DIL SOCKET 605039/A 2 off
FIT M4, M5 & M6 INTO 14-WAY DIL SOCKET 605060/A 3 off
FIT M1, M2 & M3 INTO 16-WAY DIL SOCKET 605061/A 3 off


HIGH VOLTAGE STATUS DETECTOR
OVERVOLTAGE DETECTOR
SPARE GATES
HV ST
J5-105
PH1 (REF)
SH1 (REF)
PLO (REF)
SLO (REF)
J5-1
J5-2
J5-3
J5-4
LIM DET
J5-103
BARK
J5-100
POSITIVE
SPARE 1
SPARE 4
OV(-)
J5-63
J5-64
J5-73
J5-74
J5-75
J5-107
J5-108
J5-109
J5-110
J5-111
J5-112
J5-113
J5-114
TO J5 MOTHER PCB 430582
OUTPUT CONTROL ASSEMBLY
4200
High Voltage-Status and Overvoltage Detectors
datron INSTRUMENTS
Circuit Diagram No. 430550-7.1 Sheet 2 © Datron Instruments 1986

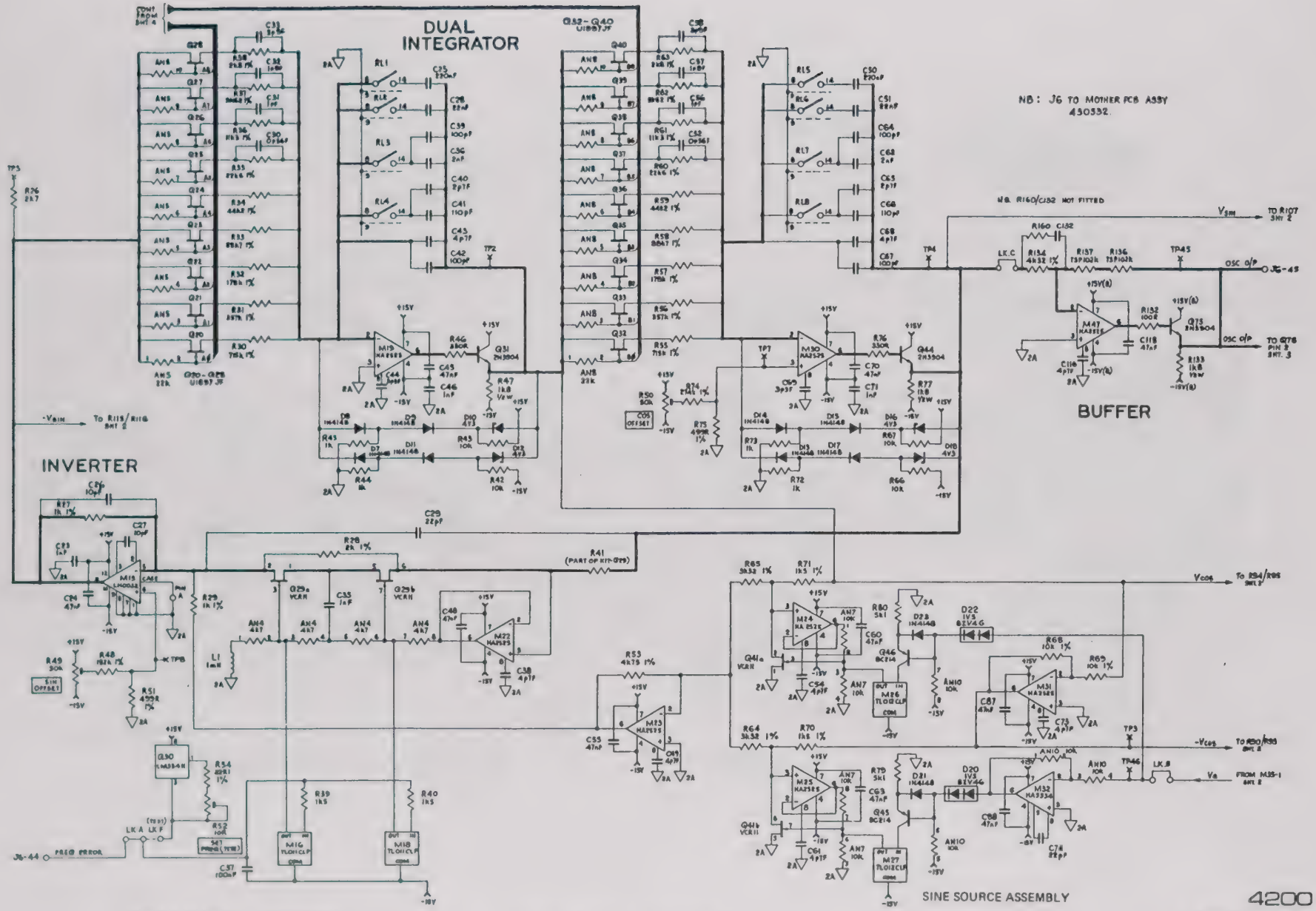
SINE SOURCE ASSEMBLY

datron INSTRUMENTS 4200

NOTE 1. FIT LINK 'E' AND LINK 'F' IN PLACE OF LINK 'A' AND LINK 'G' FOR TEST


BRASS STRIP 100mm LONG 630107 SOLDER STRIP TO 'BROAD' GUARD TRACK IN CENTRAL POSITION
WIRE LINK BETWEEN PIN A AND METAL CASE OF MIS 512999
HEATSINK (TO8) 370143 TO FIT, PRESS ON TO BODY OF M18 MOUNT M18 ON SOCKET STRIP 608164 1-3 OFF
3 OFF SOLDER PIN 620003 (A,B & C)
3 WAY MOLEX HEADER 604046 2 OFF FIT SHORTING PLUG 605127 IN POSITIONS A + G (SEE NOTE 1)
MOUNT RIM R129 AND R149 ON FSV TERMINAL 608001 6 OFF
MAKE WIRE LINKS FROM 22SWG STC WIRE 840002
R160/C152 NOT FITTED
PCB EJECTOR (YELLOW) 630120 2 OFF
M3 X 6mm STANDOFF 612026 SWAGED TO COMPONENT SIDE OF PCB.
HEATSINK 450450 SCREW M3 x 16mm POZI-CSK 611025 USE HEATSINK COMPOUND BETWEEN MATING SURFACES OF COMPONENTS 900003
PCB 410171-B
MOUNT DS, D6, D27, D34 ON CERAMIC BEAD 630066 5 OFF
TINNED COPPER WIRE LOOP 840003 TO RESTRAIN PTFE WIRE.
WIRE LINK 7/0.2mm PTFE WHITE WIRE 518999.
SLEEVE EACH END OF THIS WIRE WITH 7mm PIECE OF SLEEVING 590001
TEST POINT TERMINAL 620007 38 OFF
BRASS STRIP (IN 2 LENGTHS) 57mm & 79mm 630107 SOLDER 2 STRIPS TO 'BROAD' GUARD TRACK IN CENTRAL POSITION.
HEATSINK TO220 820089 2 OFF
SCREW M3 x 8mm POZI-PAN 611016 2 OFF
M3 SHAKEPROOF 613003 2 OFF
M3 NUT 615002 2 OFF
NB. USE HEATSINK COMPOUND 900003 BETWEEN MATING SURFACES OF Q56/Q57 AND HEATSINK. MOUNT THESE DEVICES SQUARELY ON HEATSINKS.
J6

MOUNTING IC-s			
No. OF WAYS	PART No.	No. OFF	WHERE USED
8	603099/A	17	M11, M19, M23-25, M30 M34 M38 M35, M37 M41, M44, M46, M47 M48, M18
14	603060/A	8	M3, M4, M7 M10, M15 M16, M21, M36 M49.
16	603061/A	15	M1, M2 M5, M6, M8, M9, M12, M17 M20, M22, M26 M33, M34, M40, M42, M43.
28	603063/A	1	M38

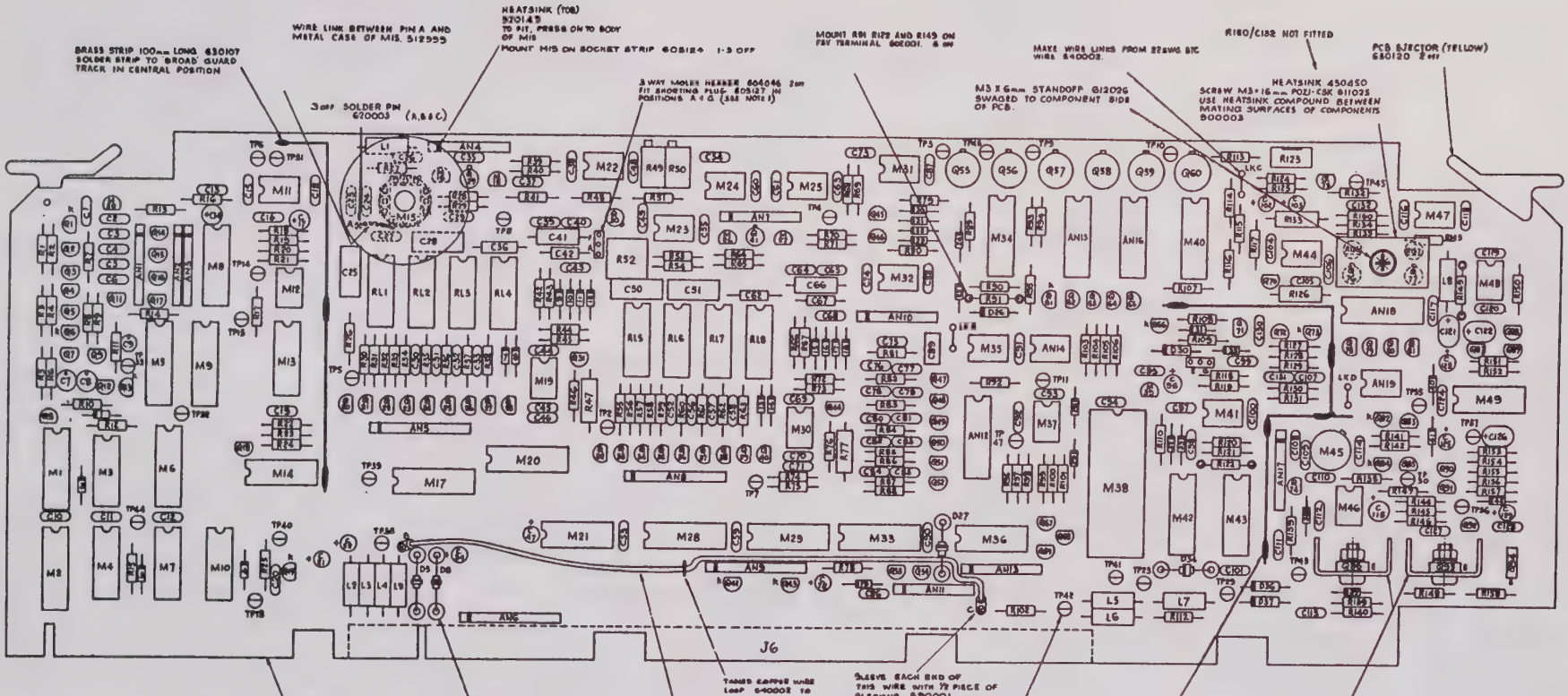

DUAL INTEGRATOR
BUFFER
INVERTER
FREQUENCY CONTROL
AMPLITUDE CONTROL
SINE SOURCE ASSEMBLY
NB: J6 TO MOTHER PCB ASSY 430532.
NB. R160/C152 NOT FITTED
4200
datron INSTRUMENTS
Sine Oscillator
Circuit Diagram No. 430446-8.0 Sheet 1
© Datron Instruments 1986
7.6-1

 © Datron Instruments 1986

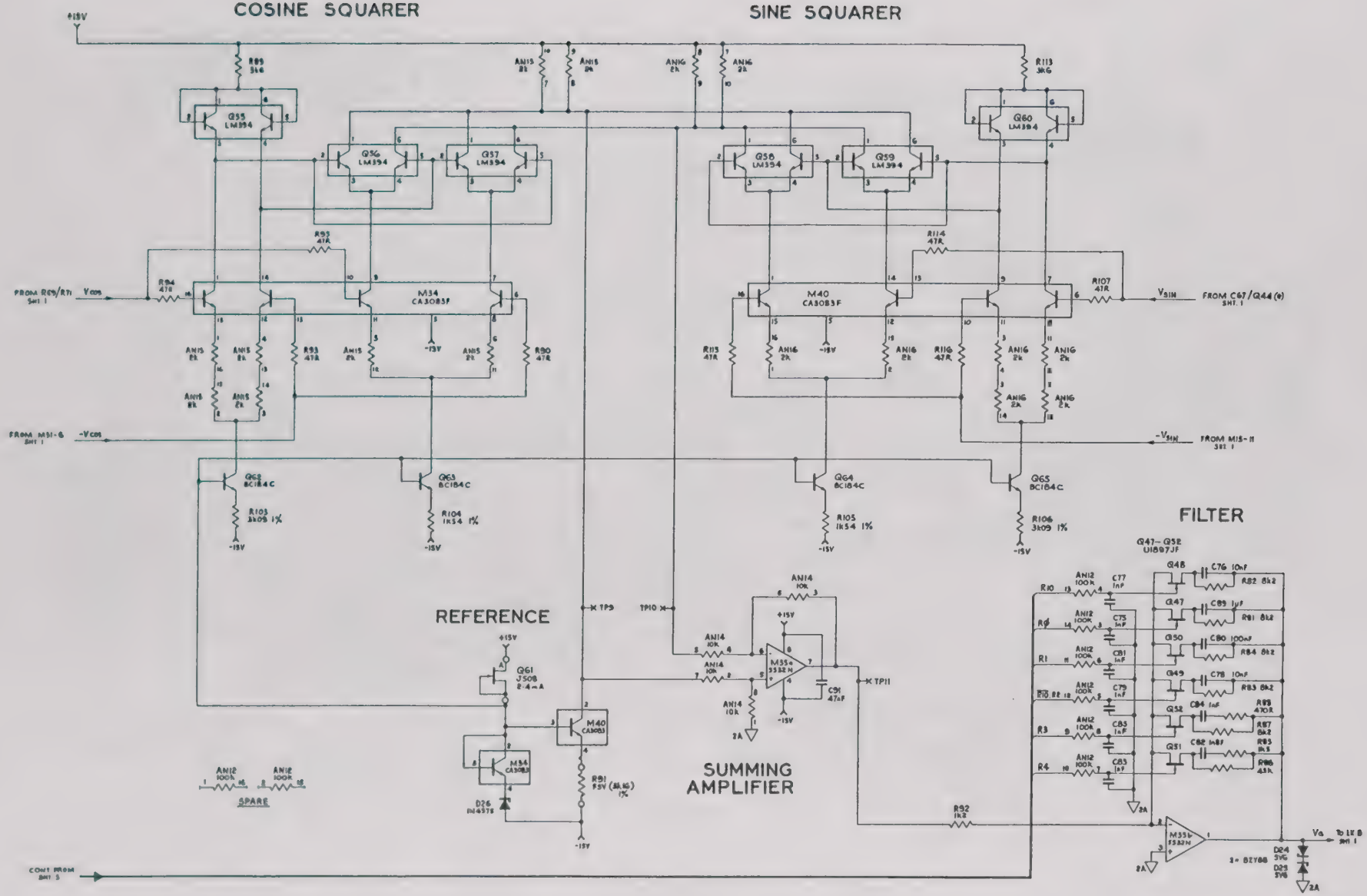
SINE SOURCE ASSEMBLY

datron INSTRUMENTS 4200

NOTE 1. FIT LINK 'E' AND LINK 'F' IN PLACE OF LINK 'A' AND LINK 'G' FOR TEST


BRASS STRIP 100mm LONG 630107 SOLDER STRIP TO 'BROAD' GUARD TRACK IN CENTRAL POSITION
WIRE LINK BETWEEN PIN A AND METAL CASE OF MIS. 512959
3 OFF SOLDER PIN 620003 (A,B & C)
HEATSINK (TO8) 570145 TO FIT, PRESS ON TO BODY OF MI8
MOUNT MI8 ON SOCKET STRIP 608164 1-3 OFF
3 WAY MOLEX HEADER 604046 2 OFF FIT SHORTING PLUG 605127 IN POSITIONS A & G (SEE NOTE 1)
MOUNT RI21 AND RI45 ON FET TERMINAL 606001. 8 OFF
MAKE WIRE LINKS FROM 22SWG BTC WIRE 640002.
M3 X 6mm STANDOFF 612026 SWAGED TO COMPONENT SIDE OF PCB.
R180/C182 NOT FITTED
HEATSINK 450450 SCREW M3 x 16mm POZI-CSK 611025 USE HEATSINK COMPOUND BETWEEN MATING SURFACES OF COMPONENTS 900003
PCB EJECTOR (YELLOW) 680120 2 OFF
PCB 410171-B
MOUNT D5, D6, D27 & D34 ON CERAMIC BEAD 680064 8 OFF
TINNED COPPER WIRE LOOP 640002 TO RESTRAIN PTFE WIRE.
WIRE LINK 7/0·3mm PTFE WHITE WIRE 618999.
SLEEVE EACH END OF THIS WIRE WITH ½" PIECE OF SLEEVING 590001
TEST POINT TERMINAL 620007 32 OFF
HEATSINK TO220 820088 2 OFF
SCREW M3 x 8mm POZI-PAN 611016 2 OFF
M3 SHAKEPROOF 613003 2 OFF
M3 NUT 613002 2 OFF
N.B. USE HEATSINK COMPOUND 900003 BETWEEN MATING SURFACE OF Q56 / Q59 AND HEATSINK, MOUNT THESE DEVICES SQUARELY ON HEATSINKS
BRASS STRIP (IN 2 LENGTHS) 38mm & 73mm 630107. SOLDER 2 STRIPS TO 'BROAD' GUARD TRACK IN CENTRAL POSITION.
J6

MOUNTING IC's			
No OF WAYS	PART No	No OFF	WHERE USED
8	603099/A	17	M11, M19, M22-28, M30 M31 M32 M35, M37 M41 M44, M46, M47 M48, M18
14	603060/A	9	M3, M4, M7 M10 M13, M16, M21, M36, M49.
16	603061/A	15	M1, M2, M5, M6, M8, M9, M17, M20, M29, M33, M34, M40, M42, M43, M45.
28	603063/A	1	M38



SINE SOURCE ASSEMBLY

Oscillator Amplitude -Detector and Reference

4200

datron INSTRUMENTS

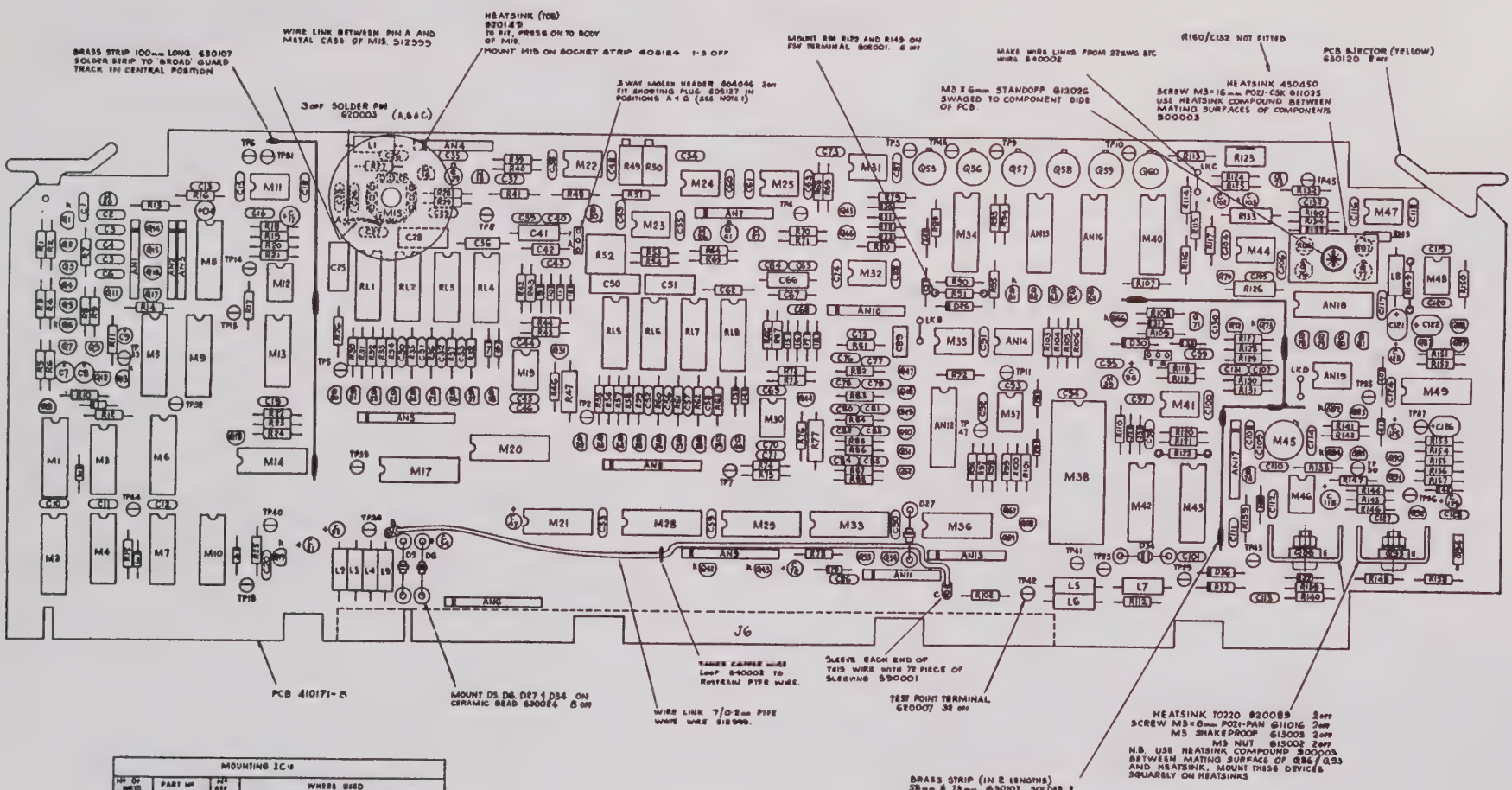
Circuit Diagram No. 430446-8.0 Sheet 2 © Datron Instruments 1986

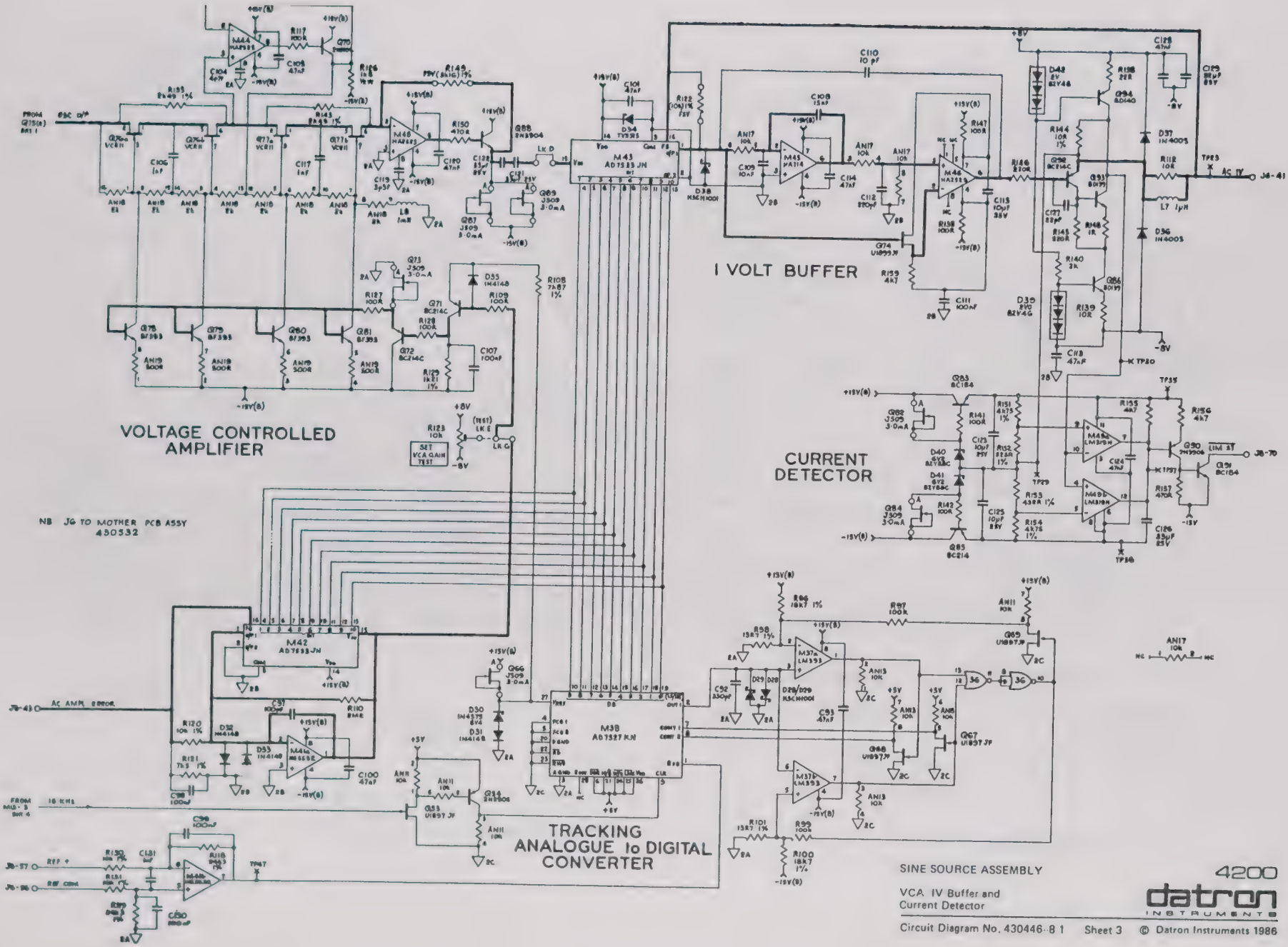
 © Datron Instruments 1986

datron INSTRUMENTS 4200

SINE SOURCE ASSEMBLY

NOTE 1. FIT LINK 'E' AND LINK 'F' IN PLACE OF LINK 'A' AND LINK 'G' FOR TEST

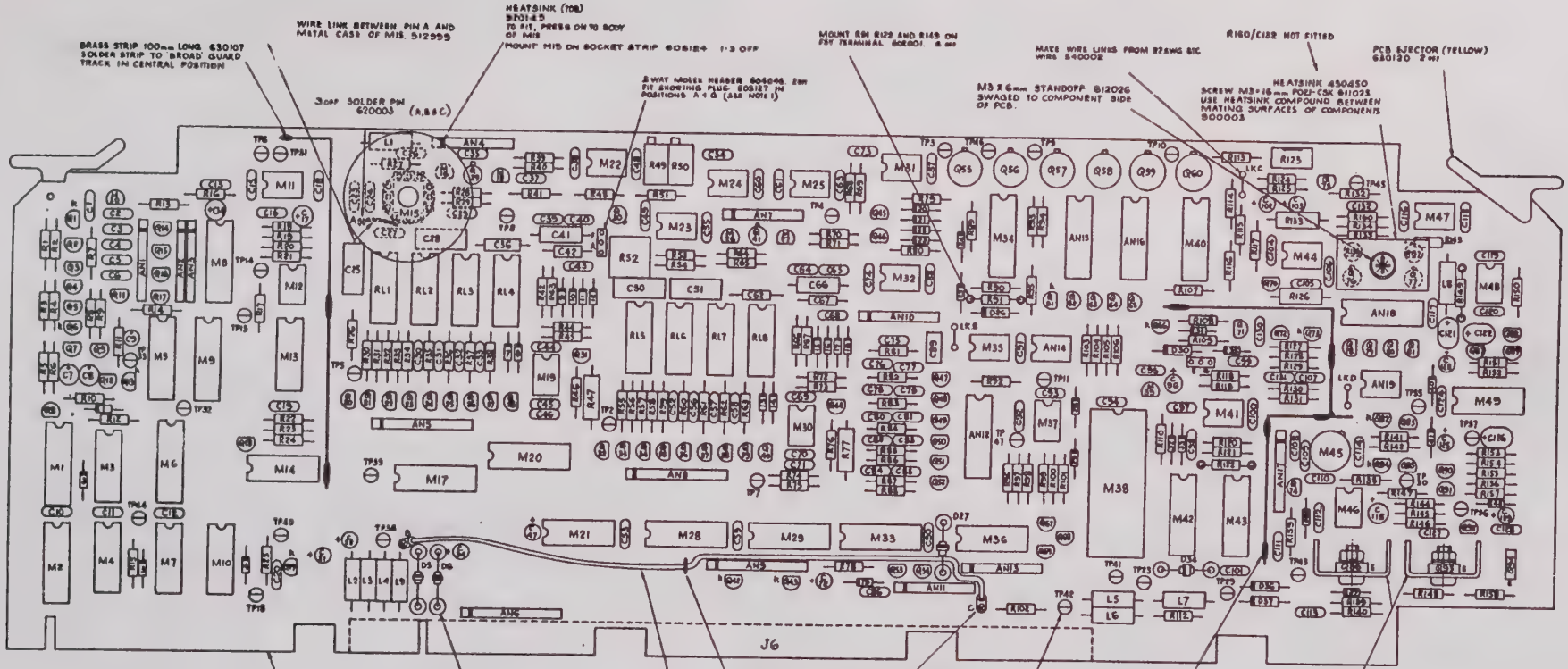

BRASS STRIP 100mm LONG 630107 SOLDER STRIP TO BROAD GUARD TRACK IN CENTRAL POSITION
WIRE LINK BETWEEN PIN A AND METAL CASE OF MI8. 512595
3 off SOLDER PIN 620003 (A,B & C)
HEATSINK (TO8) 820145 TO FIT, PRESS ON TO BODY OF MI8. MOUNT MI8 ON SOCKET STRIP 608124 1-3 OFF
3 WAY MOLEX HEADER 604046 2cm FIT SHORTING PLUG 605127 IN POSITIONS A + G (SEE NOTE 1)
MOUNT RIM RL29 AND R149 ON PSV TERMINAL 606001. 6 off
MAKE WIRE LINKS FROM 22SWG BTC WIRE 540008
R160/C132 NOT FITTED
M3 X 6mm STANDOFF 613026 SWAGED TO COMPONENT SIDE OF PCB.
SCREW M3×16mm POZI-CSK 611095 USE HEATSINK COMPOUND BETWEEN MATING SURFACES OF COMPONENTS 500003
HEATSINK 450450
PCB EJECTOR (YELLOW) 630120 2 off
TP6
TP1
L1
AN4
M11
M22
R49
R50
C58
M24
M25
TP3
TP4
TP5
TP10
Q55
Q56
Q57
Q58
Q59
Q60
R123
R125
LK6
TP45
M47
M8
TP14
M12
C16
C15
RL1
RL2
RL3
RL4
C28
C35
C40
C41
C42
C43
C36
TP8
M23
R52
R53
R54
R51
C50
C51
C52
C53
C54
C55
C56
C57
C58
C59
C60
C61
C62
C63
C64
C65
C66
C67
C68
C69
C70
C71
C72
C73
C74
C75
C76
C77
C78
C79
C80
C81
C82
C83
C84
C85
C86
C87
C88
C89


VOLTAGE CONTROLLED AMPLIFIER
1 VOLT BUFFER
CURRENT DETECTOR
TRACKING ANALOGUE to DIGITAL CONVERTER
NB J6 TO MOTHER PCB ASSY 430532
SINE SOURCE ASSEMBLY
VCA IV Buffer and Current Detector
4200
datron INSTRUMENTS
Circuit Diagram No. 430446-8 1 Sheet 3 © Datron Instruments 1986

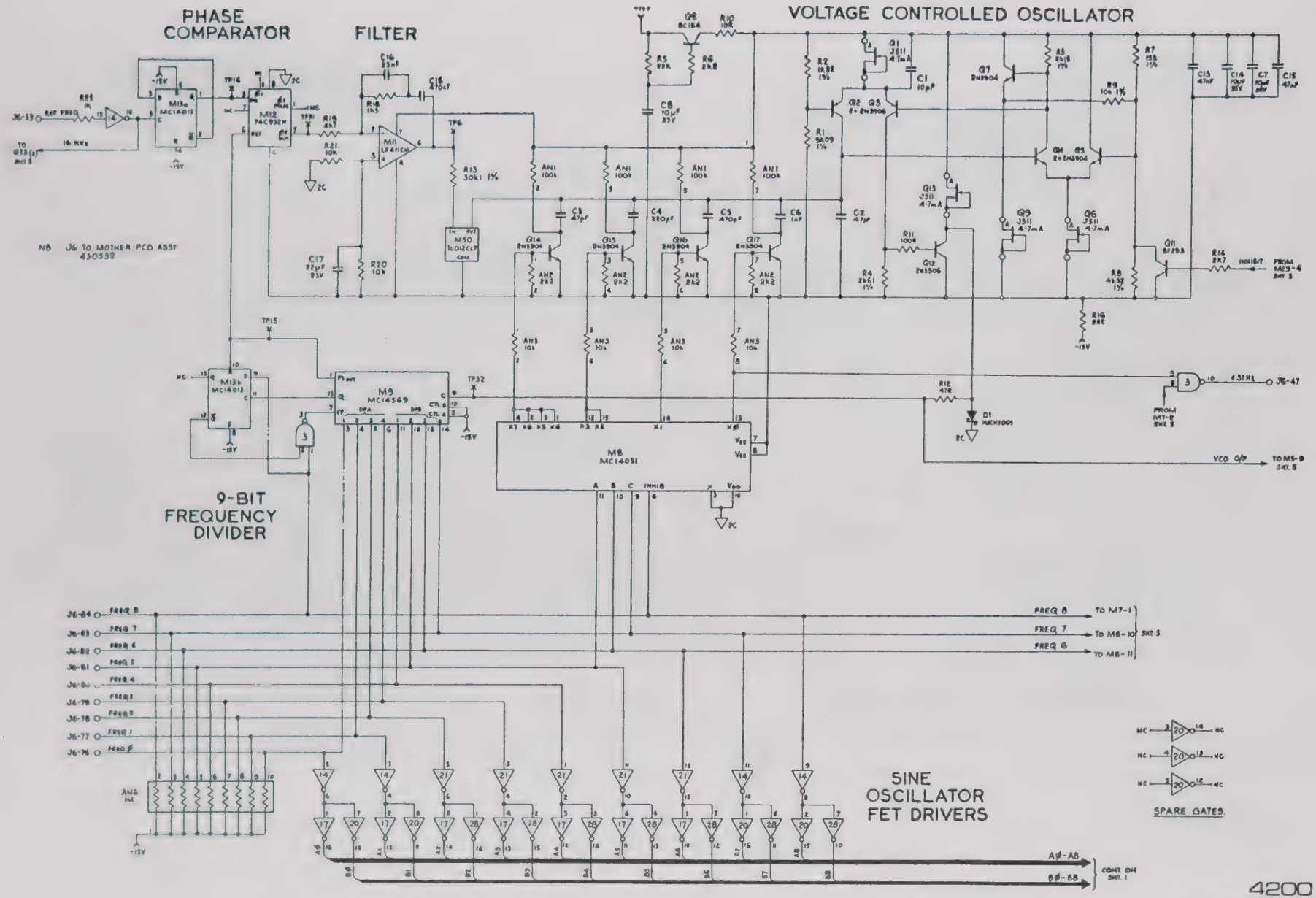
SINE SOURCE ASSEMBLY

datron INSTRUMENTS 4200

NOTE 1. FIT LINK 'E' AND LINK 'F' IN PLACE OF LINK 'A' AND LINK 'G' FOR TEST


BRASS STRIP 100mm LONG 630107 SOLDER STRIP TO BROAD GUARD TRACK IN CENTRAL POSITION
WIRE LINK BETWEEN PIN A AND METAL CASE OF M15. 512959
HEATSINK (TO8) 920145 TO FIT, PRESS ON TO BODY OF M15 MOUNT M15 ON SOCKET STRIP 605124 1-3 OFF
3 OFF SOLDER PIN 620003 (A,B & C)
8 WAY MOLEX HEADER 605046. FIT SHORTING PLUG 605127 IN POSITIONS A + B (SEE NOTE 1)
MOUNT R84 R129 AND R149 ON FET TERMINAL 606001. 6 OFF
MAKE WIRE LINKS FROM 22SWG BTC WIRE 540002
R160/C182 NOT FITTED
M3 X 6mm STANDOFF 612026 SWAGED TO COMPONENT SIDE OF PCB.
SCREW M3 x 16mm POZI-CSK 611023 USE HEATSINK COMPOUND BETWEEN MATING SURFACES OF COMPONENTS 800003
HEATSINK 450450
PCB EJECTOR (YELLOW) 680130 2 OFF
PCB 410171-B
MOUNT D5, D6, D27 & D34 ON CERAMIC BEAD 630024 4 OFF
TINNED COPPER WIRE LOOP 640003 TO RESTRAIN PTFE WIRE.
WIRE LINK 7/0.2mm PTFE WIRE WIRE 818999.
SLEEVE EACH END OF THIS WIRE WITH ½ PIECE OF SLEEVING 550001
TEST POINT TERMINAL 620007 32 OFF
BRASS STRIP (IN 2 LENGTHS) 58mm & 73mm. 630107. SOLDER 2 STRIPS TO 'BROAD' GUARD TRACK IN CENTRAL POSITION.
HEATSINK TO220 920089 2 OFF
SCREW M3x8mm POZI-PAN 611016 2 OFF
M3 SHAKEPROOF 613003 2 OFF
M3 NUT 613002 2 OFF
N.B. USE HEATSINK COMPOUND 800003 BETWEEN MATING SURFACE OF Q86/Q93 AND HEATSINK. MOUNT THESE DEVICES SQUARELY ON HEATSINKS
J6

MOUNTING IC's			
NO OF WAYS	PART Nº	Nº OFF	WHERE USED
8	603059/A	17	M11, M19, M29-33, M35 M36 M38, M42, M37 M41 M44 M46 M47 M48, M18
14	603060/A	8	M5 M6 M7 M10, M13 M16 M21 M28, M49.
16	603061/A	15	M1, M2, M3, M4, M8, M9, M12, M17, M20, M22, M23, M24, M25, M27, M34, M40, M43, M45.
28	603065/A	1	M58



4200

SINCE SOURCE ASSEMBLY

Digital Synthesizer

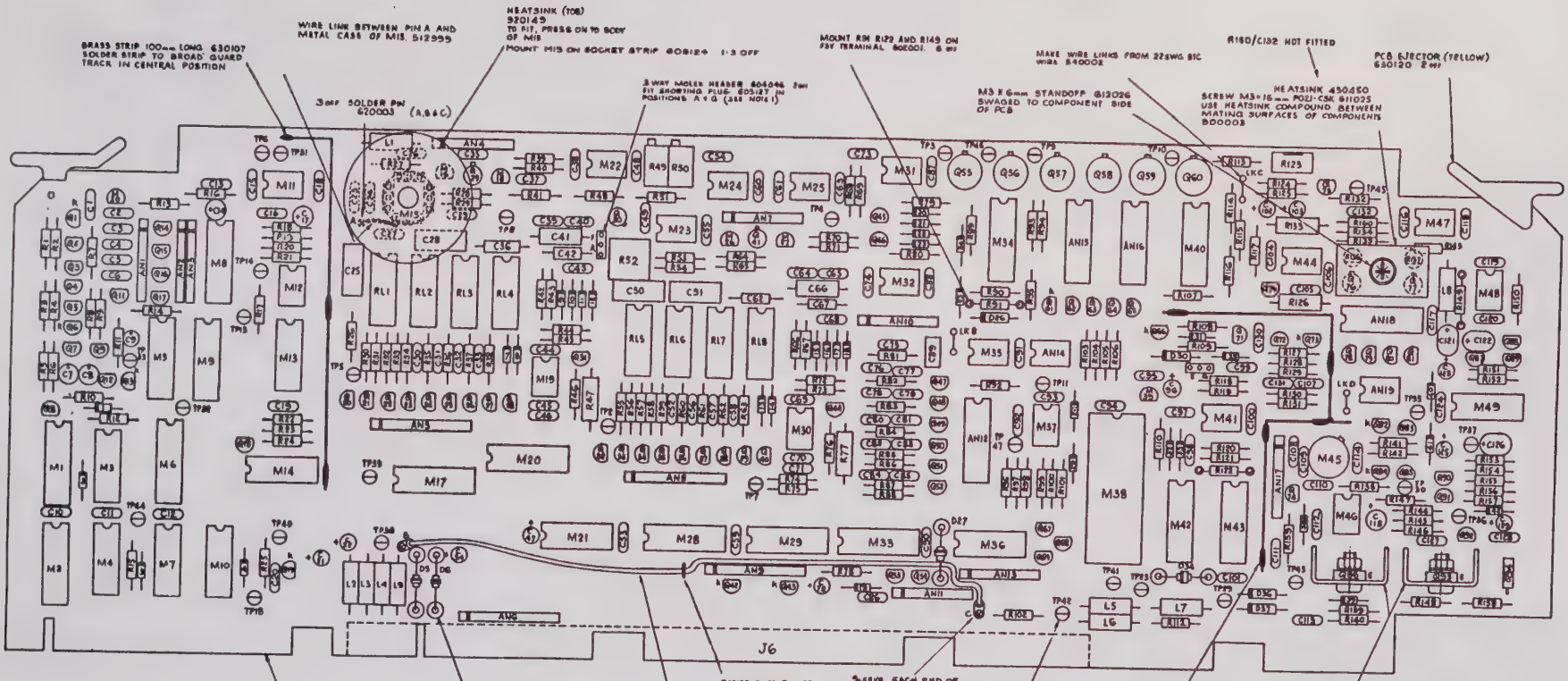
datron INSTRUMENTS

Circuit Diagram No. 430446-8.0 Sheet 4 © Datron Instruments 1986

SINE SOURCE ASSEMBLY

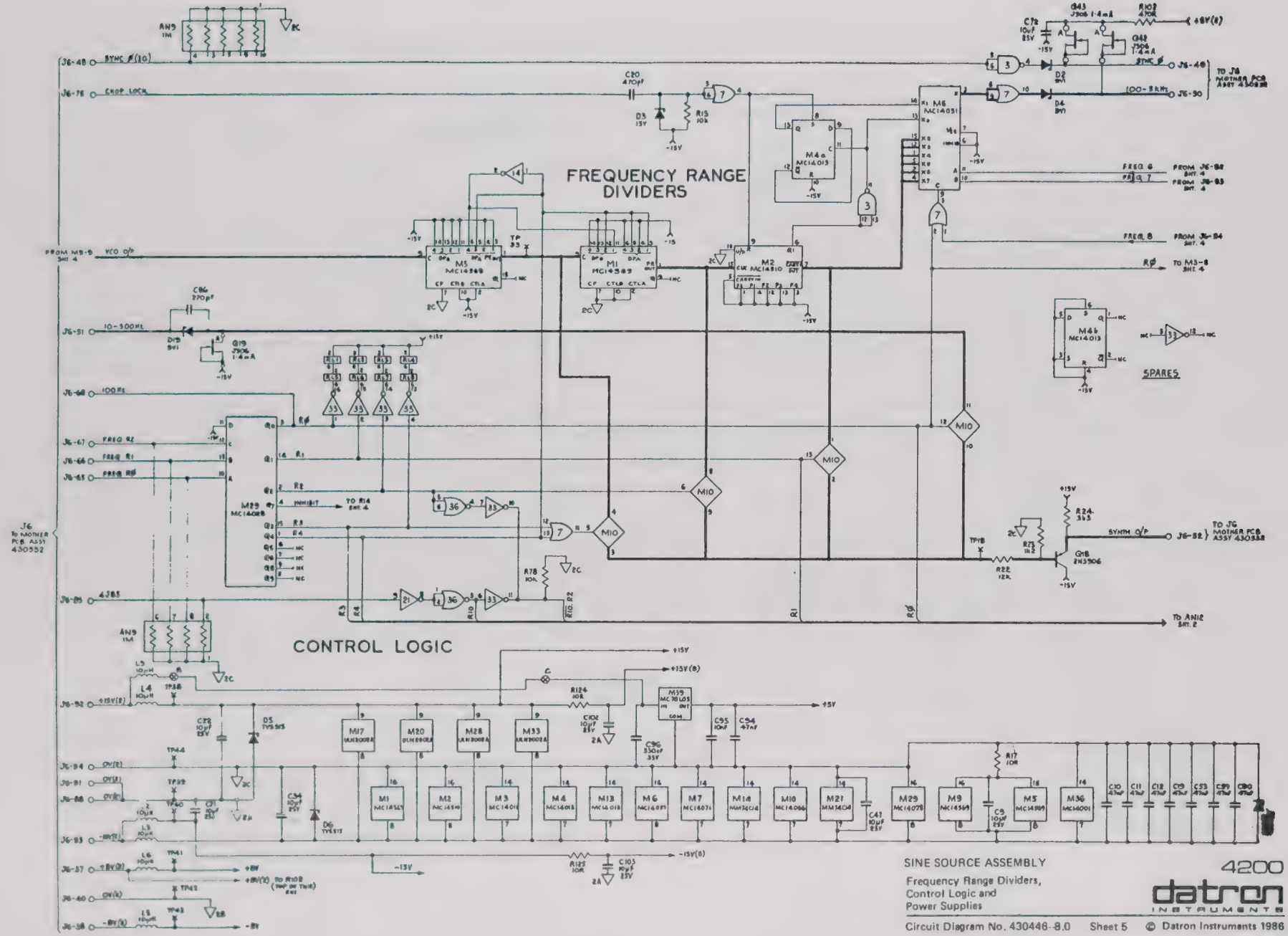
datron INSTRUMENTS 4200

NOTE 1 FIT LINK 'B' AND LINK 'F' IN PLACE OF LINK 'A' AND LINK 'G' FOR 1737


BRASS STRIP 100mm LONG. 630107 SOLDER STRIP TO BROAD GUARD TRACK IN CENTRAL POSITION
WIRE LINK BETWEEN PIN A AND METAL CASE OF MI5. 512999
HEATSINK (TO8) 920145 TO FIT, PRESS ON TO BODY OF MI8. MOUNT MI5 ON SOCKET STRIP 608126 1-3 OFF
3mm SOLDER PN 620003 (A,B&C)
3 WAY MOLEX HEADER 604046. 2ml FIT SHORTING PLUG 603127 IN POSITIONS A+G (SEE NOTE 1)
MOUNT RM R129 AND R149 ON FSV TERMINAL 606001. 6 off
MAKE WIRE LINKS FROM 22SWG BTC WIRE 540002
R160/C182 NOT FITTED
PCB EJECTOR (YELLOW) 630120 2 off
M3 X 6mm STANDOFF 612026 SWAGED TO COMPONENT SIDE OF PCB
SCREW M3×16mm POZI-CSK 611025
HEATSINK 450650
USE HEATSINK COMPOUND BETWEEN MATING SURFACES OF COMPONENTS 900003
PCB 410171-B
MOUNT D5, D6, DZ7.1 D34 ON CERAMIC BEAD 630026 8 off
TINNED COPPER WIRE LOOP 540003 TO RESTRAIN PTFE WIRE.
WIRE LINK 7/0.2mm PTFE WHITE WIRE 512999.
SLEEVE EACH END OF THIS WIRE WITH ½ PIECE OF SLEEVING 550001
TEST POINT TERMINAL 620007 32 off
BRASS STRIP (IN 2 LENGTHS) 55mm & 73mm. 630107. SOLDER 2 STRIPS TO 'BROAD' GUARD TRACK IN CENTRAL POSITION.
HEATSINK T0220 820085 2 off
SCREW M3×8mm POZI-PAN 611016 2 off
M3 SHAKEPROOF 613003 2 off
M3 NUT 613002 2 off
N.B. USE HEATSINK COMPOUND 900003 BETWEEN MATING SURFACE OF Q86/Q93 AND HEATSINK. MOUNT THESE DEVICES SQUARELY ON HEATSINKS
J6

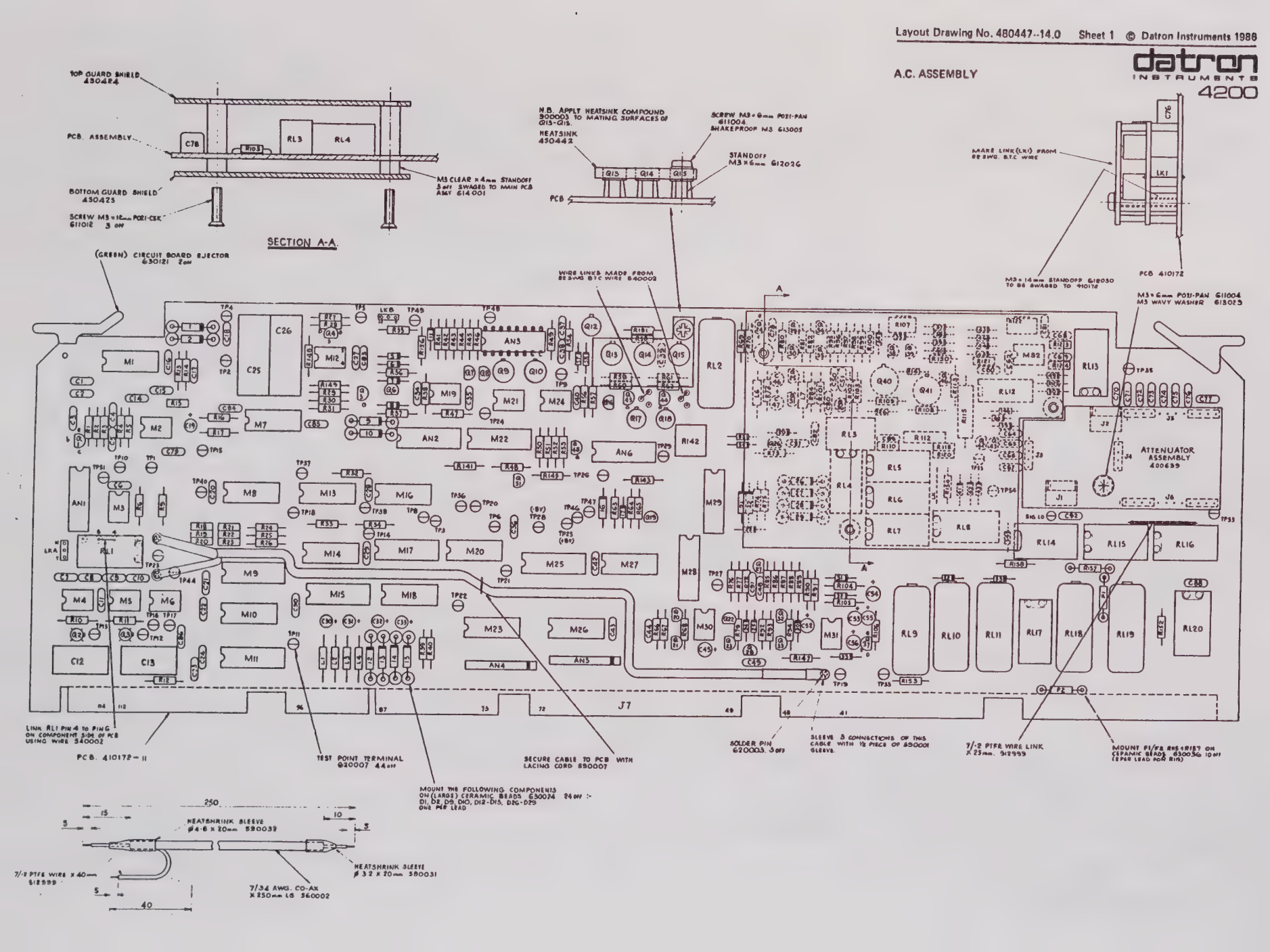
MOUNTING IC's

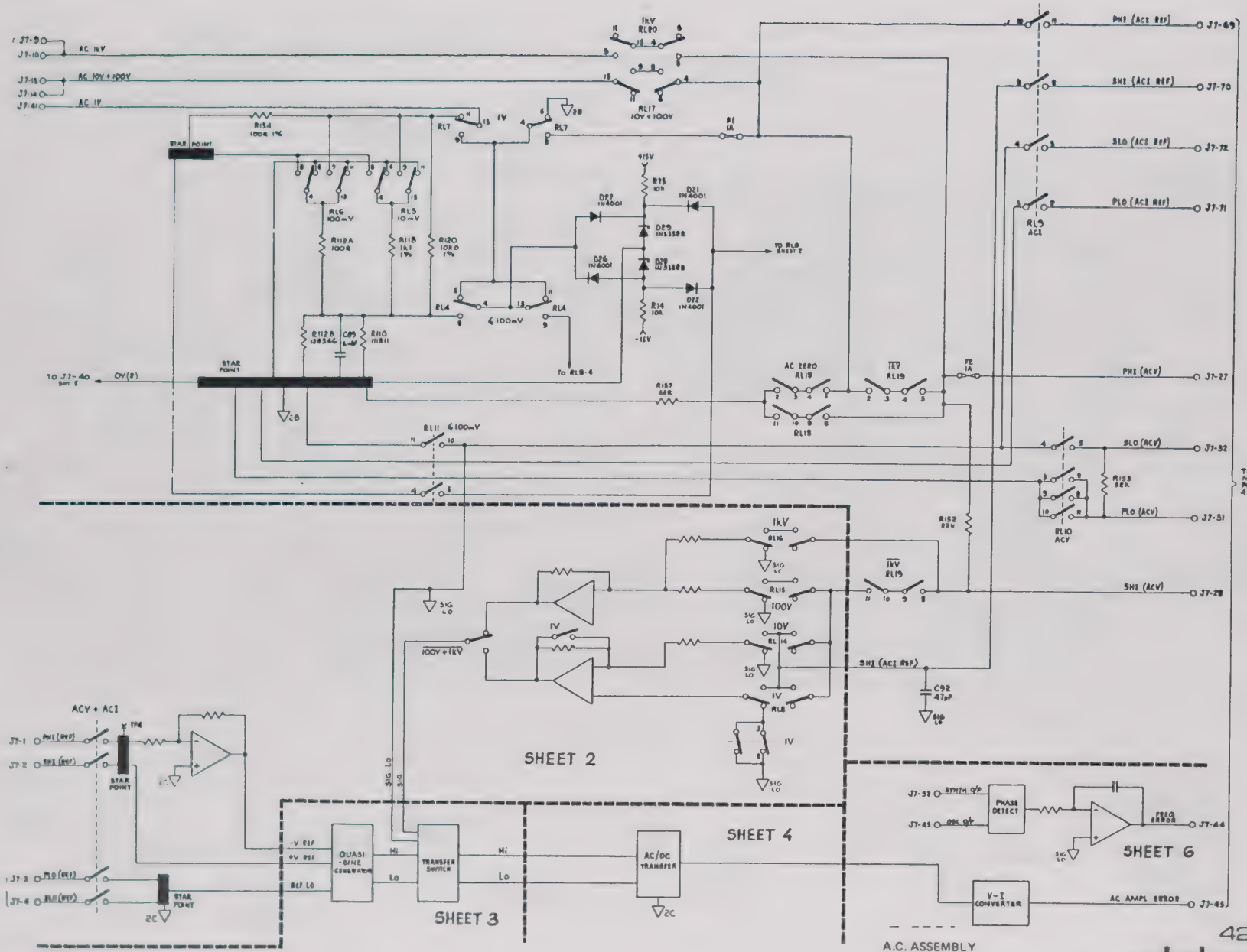
No. Of ways	PART No	No. off	WHERE USED
8	603059/A	17	M11, M19, M29-28, M30 M31 M32 M35, M37 M41 M44 M46, M47 M48, M18
14	603060/A	8	M3, M4, M7 M10, M13, M16, M21 M36 M49.
16	603061/A	15	M1, M2, M5, M6, M8, M9, M17 M20, M28, M29 M33, M34, M40, M42 M43.
28	603063/A	1	M38


FREQUENCY RANGE DIVIDERS
CONTROL LOGIC
SPARES
SINE SOURCE ASSEMBLY
Frequency Range Dividers, Control Logic and Power Supplies
4200
datron INSTRUMENTS
Circuit Diagram No. 430446-8.0 Sheet 5 © Datron Instruments 1986

A.C. ASSEMBLY

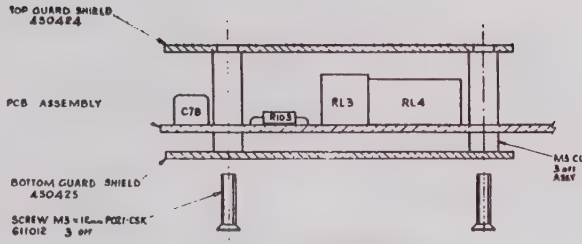
datron INSTRUMENTS 4200


TOP GUARD SHIELD 450424
PCB. ASSEMBLY
BOTTOM GUARD SHIELD 450425
SCREW M3 x 12mm POZI-CSK 611012 3 off
M3 CLEAR x 4mm STANDOFF 3 off SWAGED TO MAIN PCB ASSY 614001
SECTION A-A.
N.B. APPLY HEATSINK COMPOUND 300003 TO MATING SURFACES OF Q13-Q15.
HEATSINK 450442
SCREW M3 x 6mm POZI-PAN 611004 SHAKEPROOF M3 613005
STANDOFF M3 x 6mm 612026
PCB
MAKE LINK (LK1) FROM 22 SWG. B.T.C. WIRE
M3 x 14mm STANDOFF 618050 TO BE SWAGED TO 410172
PCB 410172
(GREEN) CIRCUIT BOARD EJECTOR 630121 2off
WIRE LINKS MADE FROM 22 SWG B.T.C WIRE 540002
M3 x 6mm POZI-PAN 611004 M3 WAVY WASHER 618025
ATTENUATOR ASSEMBLY 400639
LINK RL1 PIN 4 TO PIN 9 ON COMPONENT SIDE OF PCB USING WIRE 540002
PCB. 410172-11
TEST POINT TERMINAL 620007 44off
SECURE CABLE TO PCB WITH LACING CORD 550007
SOLDER PIN 620003. 3off
SLEEVE 3 CONNECTIONS OF THIS CABLE WITH ½ PIECE OF 550001 SLEEVE.
7/.2 PTFE WIRE LINK X 23mm. 512999
MOUNT P1/P2 ON 4 OFF 4187 OR CERAMIC BEADS 630036 10off (EITHER LEAD FOR RIN)
MOUNT THE FOLLOWING COMPONENTS ON (LARGE) CERAMIC BEADS 630024 24off :- D1, D2, D9, D10, D12-D15, D26-D29 ONE PER LEAD
250
15
10
5
5
HEATSHRINK SLEEVE Ø4·8 x 20mm 550032
HEATSHRINK SLEEVE Ø 3·2 x 20mm 550031
7/.2 PTFE WIRE x 40mm 512999
7/.34 AWG. CO-AX X 250mm LG 560002
5
40

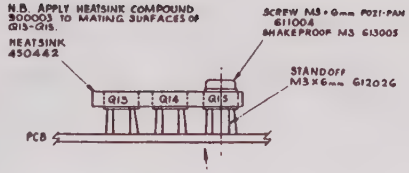

AC 1kV
AC 10V + 100V
AC 1V
1kV RL20
RL17 10V + 100V
RL7 1V
R154 100R 1%
STAR POINT
RL6 100mV
RL5 10mV
R112A 100R
R112B 1R
R113 1k1 1%
R120 10R0 1%
RL4 100mV
R115 10R
D21 IN4001
D27 IN4001
D26 IN4001
D25 IN4001
D22 IN4001
R14 10R
+15V
-15V
TO RLB SHEET 2
To RLB-4
TO J7-40 0V(P)
R157 68R
AC ZERO RL18
1kV RL19
RL11 100mV
RL18
PHI (ACI REF) J7-69
SHI (ACI REF) J7-70
SLO (ACI REF) J7-72
PLO (ACI REF) J7-71
RL9 ACI
PHI (ACV) J7-27
SLO (ACV) J7-32
PLO (ACV) J7-31
SHI (ACV) J7-28
R193 88R
R152 93R
RL10 ACV
TO J7 MOTHER PCB ASSY 430732
1kV RL16
RL15
100V
10V
1V
RL14
RL8
100V + 1kV
SIG LO
SHI (ACI REF)
C92 47pF
SHEET 2
ACV + ACI
J7-1 PHI (REF)
J7-2 SHI (REF)
J7-3 PLO (REF)
J7-4 SLO (REF)
STAR POINT
-V REF
0V REF
REF LO
QUASI - SINE GENERATOR
Hi
Lo
TRANSFER SWITCH
AC/DC TRANSFER
SHEET 3
SHEET 4
J7-52 SYNTH Q/P
J7-45 OSC Q/P
PHASE DETECT
FREQ ERROR J7-44
SHEET 6
V-I CONVERTER
AC AMPL ERROR J7-45
A.C. ASSEMBLY
Switching Overview
4200
datron INSTRUMENTS
Circuit Diagram No. 430447-14.0 Sheet 1 © Datron Instruments 1986

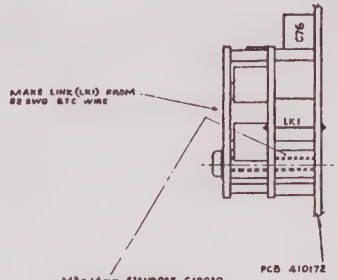
datron INSTRUMENTS 4200

A.C. ASSEMBLY



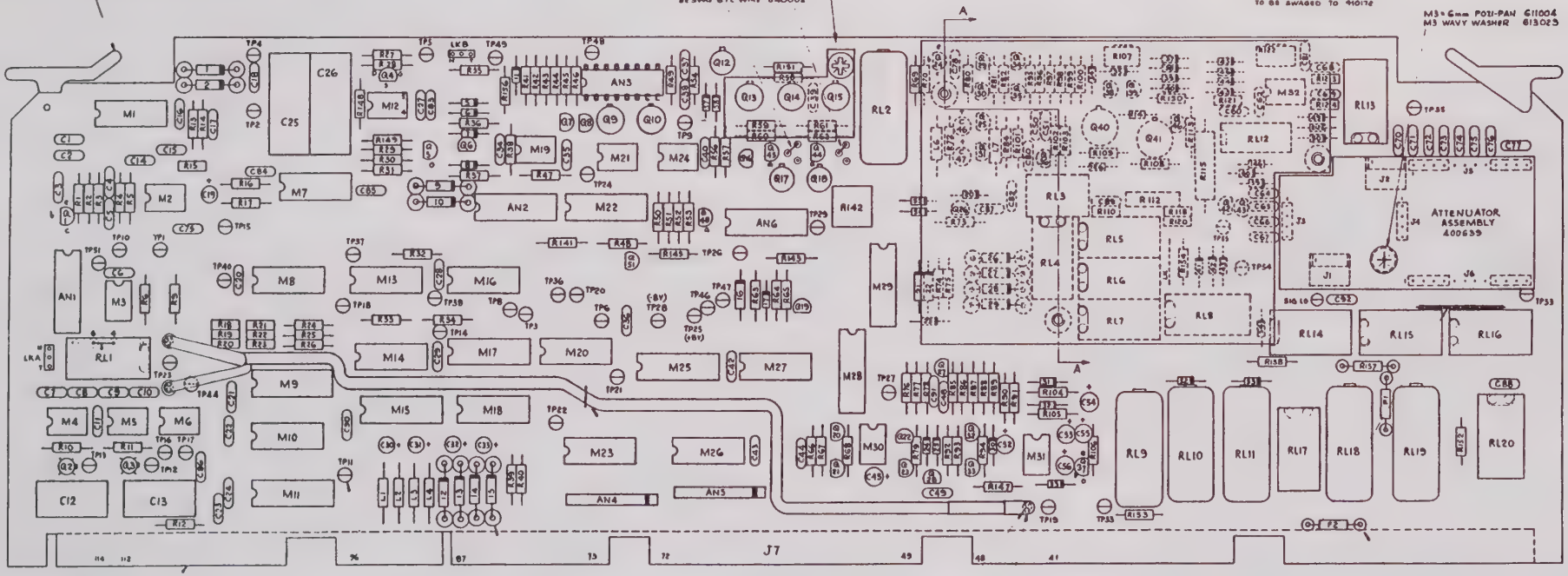
SECTION A-A.




MAKE LINK(LK1) FROM 22 SWG BTC WIRE
LK1
C7
M3 x 14mm STANDOFF 618030 TO 22 SWAGED TO 410172
PCB 410172
M3 x 6mm POZI-PAN 611004
M3 WAVY WASHER 613025

(GREEN) CIRCUIT BOARD EJECTOR 680121 2off

WIRE LINKS MADE FROM 22 SWG BTC WIRE 540002



LINK RL1 PIN 4 to PIN 6 ON COMPONENT SIDE OF PCB USING WIRE 540002

PCB. 410172-11

TEST POINT TERMINAL 620007 44off

SECURE CABLE TO PCB WITH LACING CORD 550007

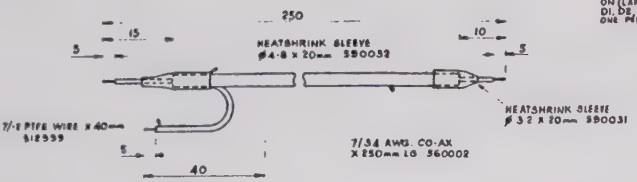
SOLDER PIN 620003 3off

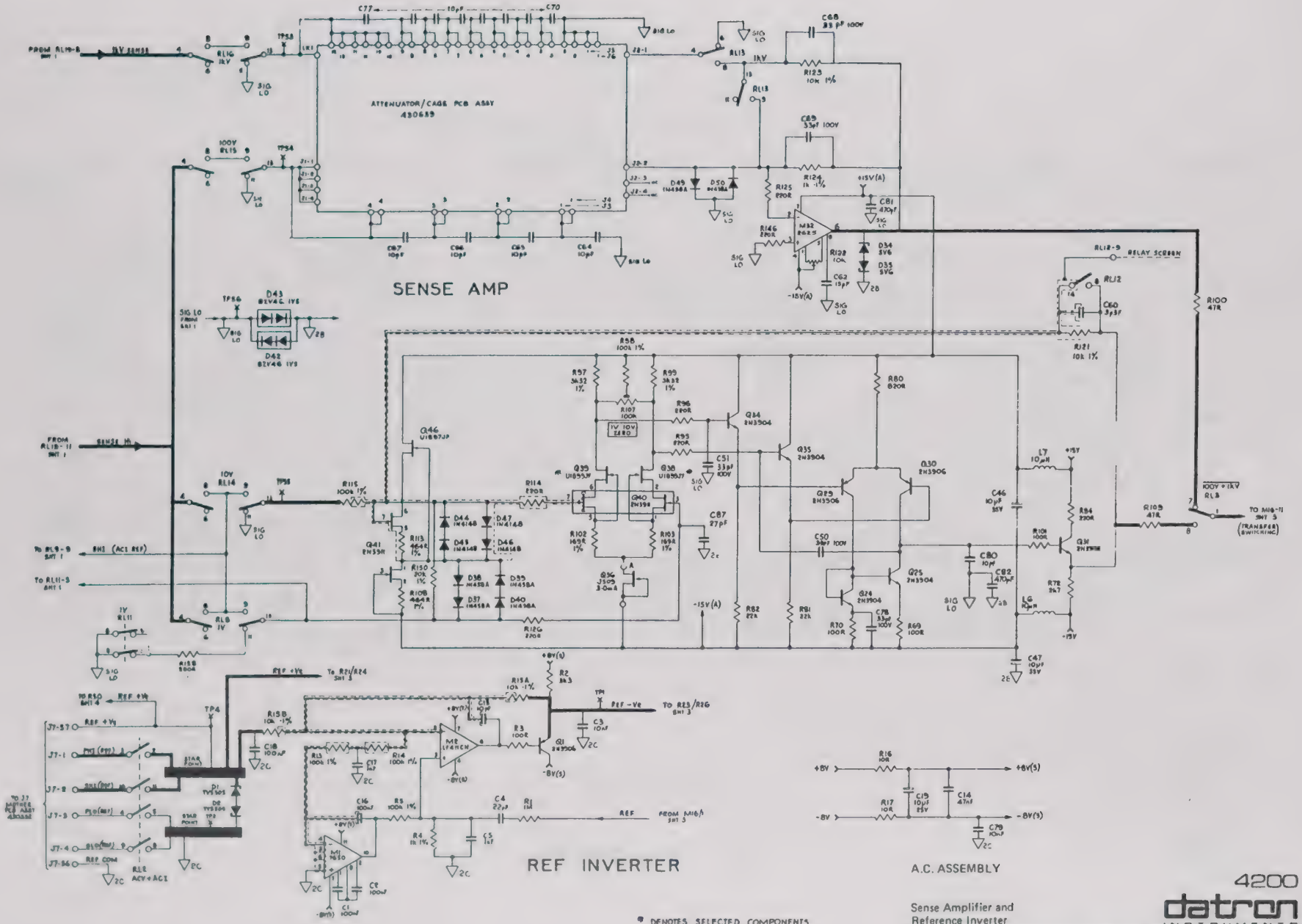
SLEEVE 3 CONNECTIONS OF THIS CABLE WITH ½ PIECE OF 550001 SLEEVE

7/-2 PTFE WIRE LINK X 25mm 512999

MOUNT FI/F8 AND 187 ON CERAMIC BEADS 630036 10off (SPLIT LEAD FOR R115)

MOUNT THE FOLLOWING COMPONENTS ON (LARGE) CERAMIC BEADS 630024 24off :- D1, D8, D9, D10, D12-D15, D26-D29 ONE PER LEAD





4200

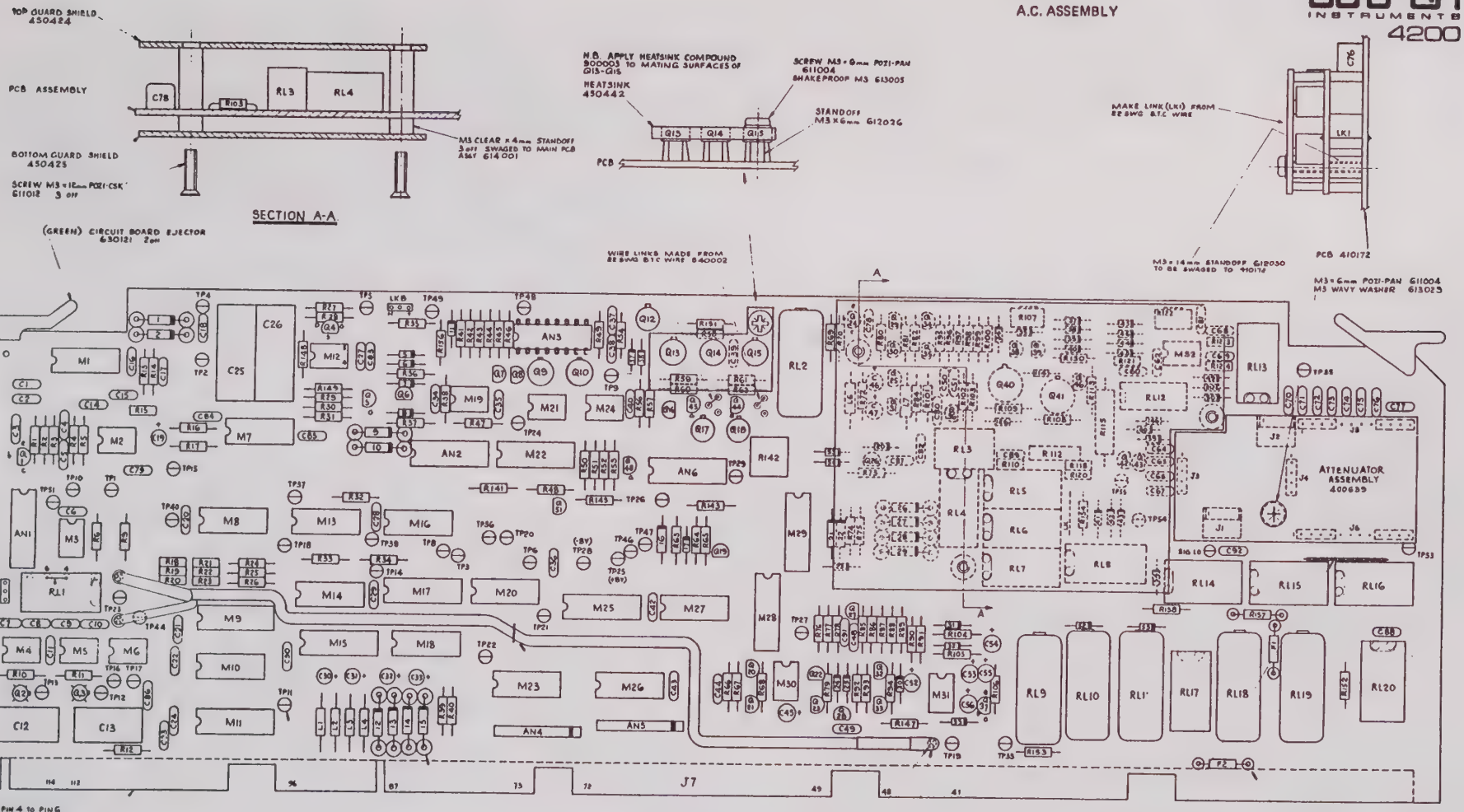
datron INSTRUMENTS

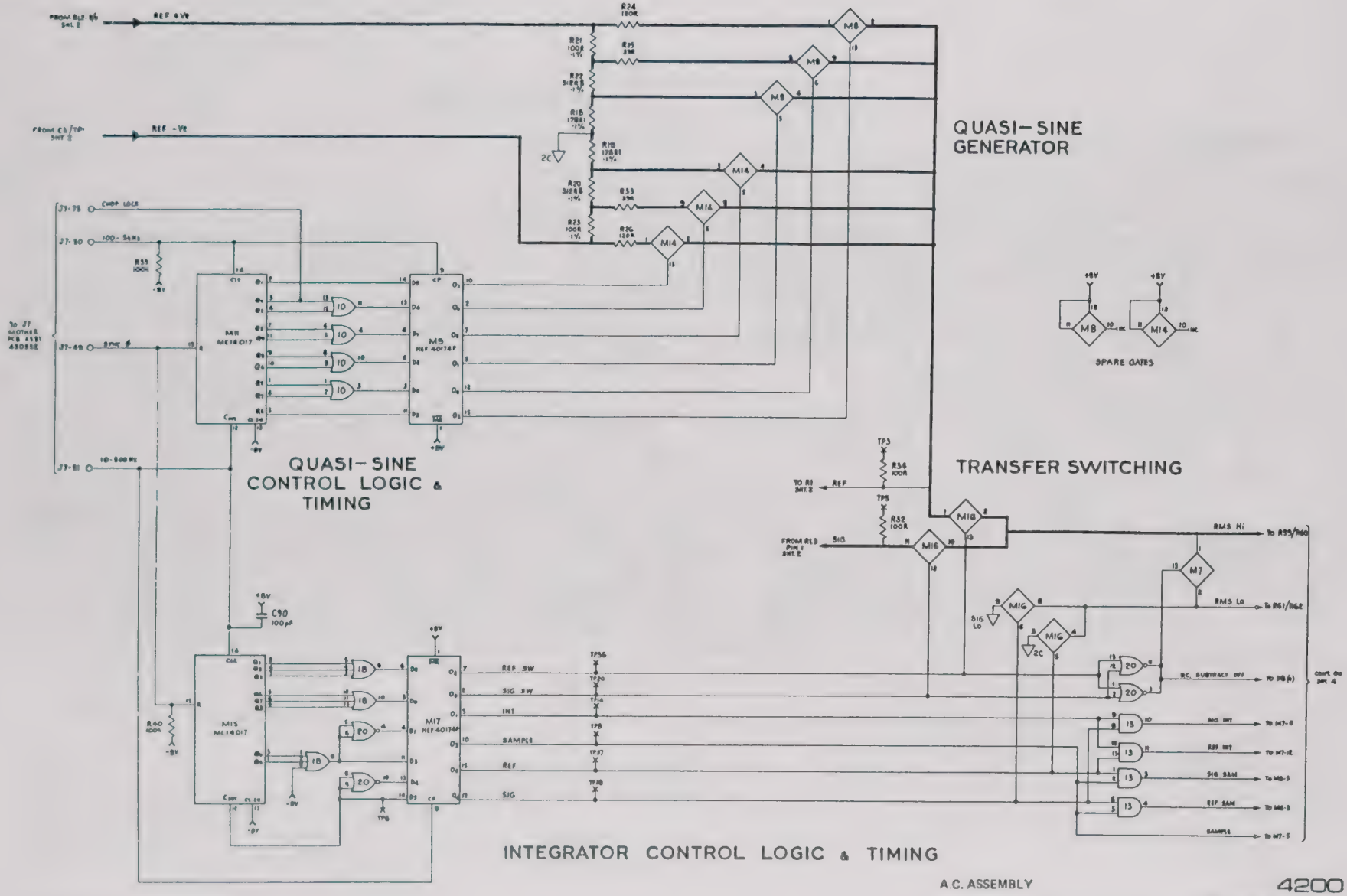
Sense Amplifier and Reference Inverter

Circuit Diagram No. 430447--14.0 Sheet 2 © Datron Instruments 1986

A.C. ASSEMBLY

datron INSTRUMENTS 4200


TOP GUARD SHIELD 450424
PCB ASSEMBLY
BOTTOM GUARD SHIELD 450425
SCREW M3 x 12mm POZI-CSK 611012 3 off
M3 CLEAR x 4mm STANDOFF 3 off SWAGED TO MAIN PCB ASSY 614001
SECTION A-A
(GREEN) CIRCUIT BOARD EJECTOR 630121 2off
N.B. APPLY HEATSINK COMPOUND 800003 TO MATING SURFACES OF Q13-Q15
HEATSINK 450442
SCREW M3 x 8mm POZI-PAN 611004 SHAKEPROOF M3 613005
STANDOFF M3 x 6mm 612026
PCB
MAKE LINK (LK1) FROM 22 SWG B.T.C WIRE
M3 x 14mm STANDOFF 612030 TO BE SWAGED TO 410172
PCB 410172
M3 x 6mm POZI-PAN 611004
M3 WAVY WASHER 613025
WIRE LINKS MADE FROM 22 SWG B.T.C WIRE 640002
ATTENUATOR ASSEMBLY 400639
J7
LINK RL1 PIN 4 to PIN 6 ON COMPONENT SIDE OF PCB USING WIRE 640002
PCB. 410172-11
TEST POINT TERMINAL 620007 44 off
SECURE CABLE TO PCB WITH LACING CORD 850007
SOLDER PIN 620003 3 off
SLEEVE 3 CONNECTIONS OF THIS CABLE WITH ½ PIECE OF 850001 SLEEVE
7/2 PTFE WIRE LINK X 25mm 512999
MOUNT FI/F8 BHS-18/87 ON CERAMIC BEADS 630036 10 off (EITHER LEAD FOR F1/F8)
MOUNT THE FOLLOWING COMPONENTS ON (LARGE) CERAMIC BEADS 630024 24 off :- D1, D2, D9, D10, D12-D15, D26-D29 ONE PER LEAD
250
HEATSHRINK SLEEVE ϕ4·8 x 20mm 590032
HEATSHRINK SLEEVE ϕ3·2 x 20mm 590031
7/36 AWG CO-AX X 250mm LG 360002
40



A.C. ASSEMBLY

Quasi-Sine Generator and Timing Logic

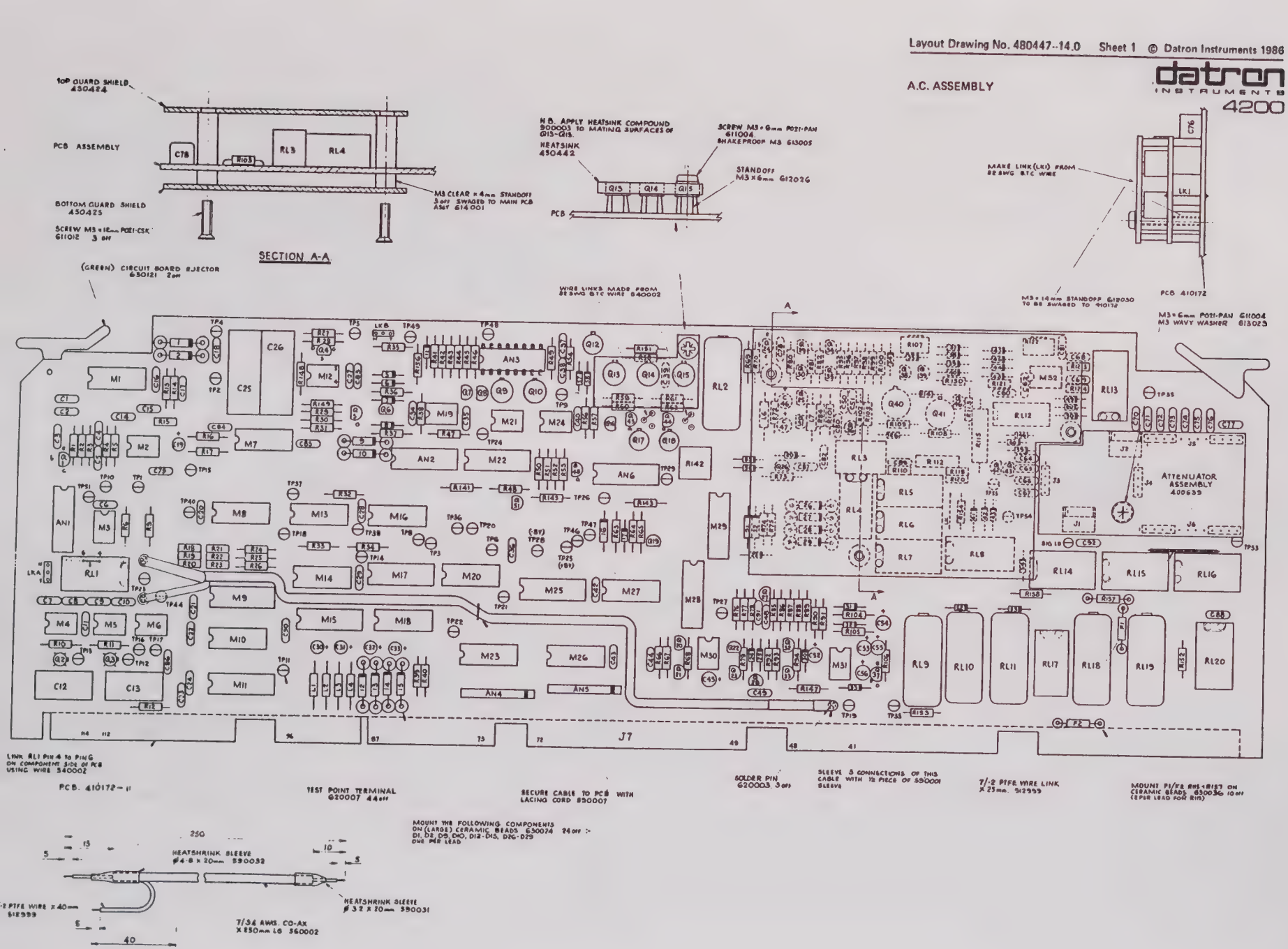
4200

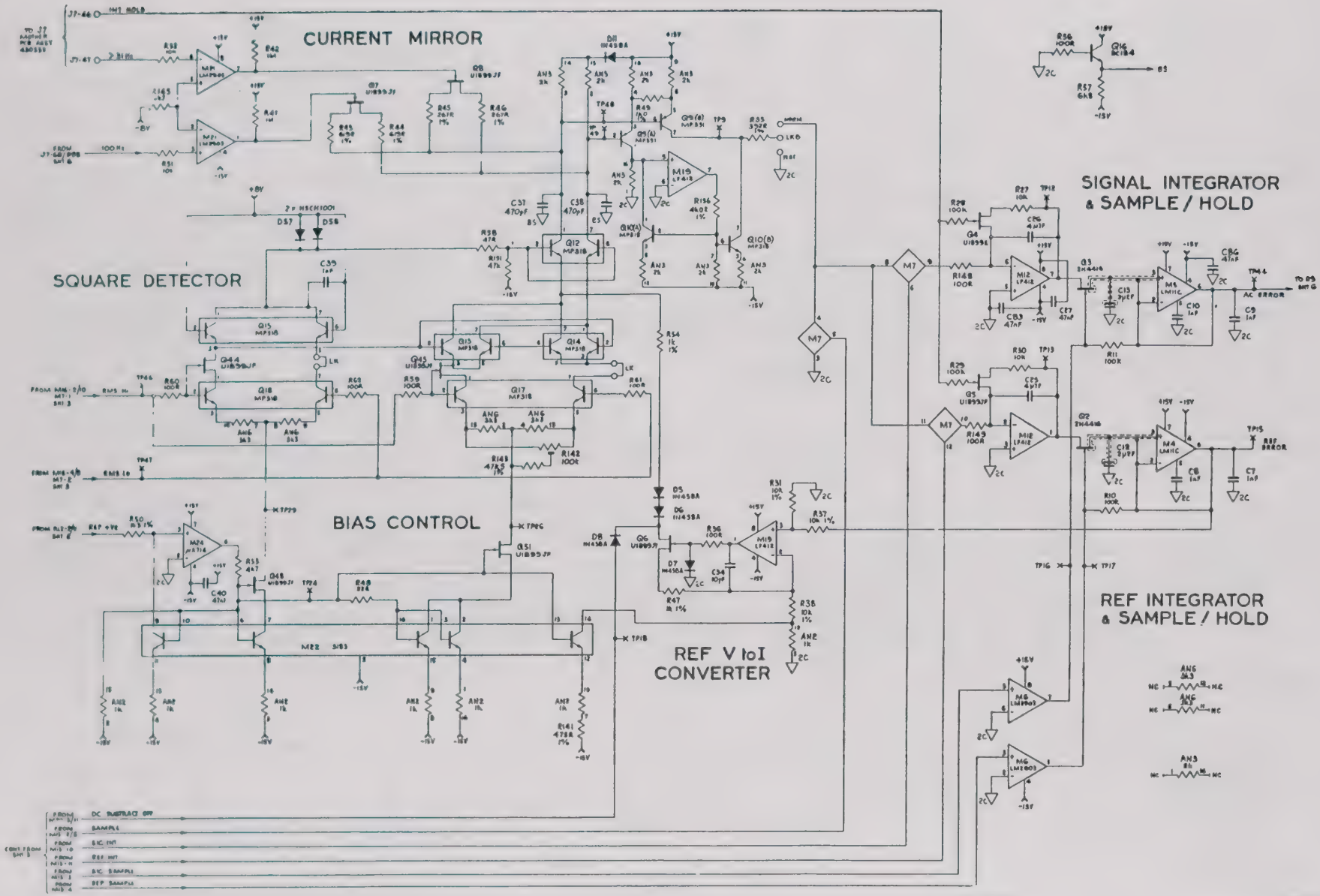
datron INSTRUMENTS

CIRCUIT Diagram No 430447--14 0 Sheet 3 © Datron Instruments 1986

A.C. ASSEMBLY

datron INSTRUMENTS 4200


TOP GUARD SHIELD 450424
PCB ASSEMBLY
BOTTOM GUARD SHIELD 450425
SCREW M3 x 12mm POZI-CSK 611012 3 off
M3 CLEAR x 4mm STANDOFF 3 off SWAGED TO MAIN PCB ASSY 614001
SECTION A-A
(GREEN) CIRCUIT BOARD EJECTOR 630121 2 off
N.B. APPLY HEATSINK COMPOUND 900003 TO MATING SURFACES OF Q13-Q15.
HEATSINK 450442
SCREW M3 x 6mm POZI-PAN 611004 SHAKEPROOF M3 613005
STANDOFF M3 x 6mm 612026
PCB
MAKE LINK (LK1) FROM 22 SWG BTC WIRE
M3 x 14mm STANDOFF 612030 TO BE SWAGED TO 410172
PCB 410172
M3 x 6mm POZI-PAN 611004
M3 WAVY WASHER 613023
WIRE LINKS MADE FROM 22 SWG BTC WIRE 540002
ATTENUATOR ASSEMBLY 400639
LINK RL1 PIN 4 TO PIN 9 ON COMPONENT SIDE OF PCB USING WIRE 540002
PCB. 410172-11
TEST POINT TERMINAL 620007 44 off
SECURE CABLE TO PCB WITH LACING CORD 550007
SOLDER PIN 620003. 3 off
SLEEVE 5 CONNECTIONS OF THIS CABLE WITH ½ PIECE OF 550001 SLEEVE
7/-2 PTFE WIRE LINK X 23mm. 512999
MOUNT FI/EB RHS+RIB7 ON CERAMIC BEADS 630036 10 off (EPSR LEAD FOR RIB)
MOUNT THE FOLLOWING COMPONENTS ON (LARGE) CERAMIC BEADS 630074 24 off :- D1, D2, D8, D10, D12-D15, D26-D29 ONE PER LEAD
HEATSHRINK SLEEVE ø4·8 x 20mm 590032
HEATSHRINK SLEEVE ø 3·2 x 20mm 590031
7/34 AWG. CO-AX X 850mm LG 560002
250
40



A.C. ASSEMBLY

AC/DC Transfer Detector and Integrators

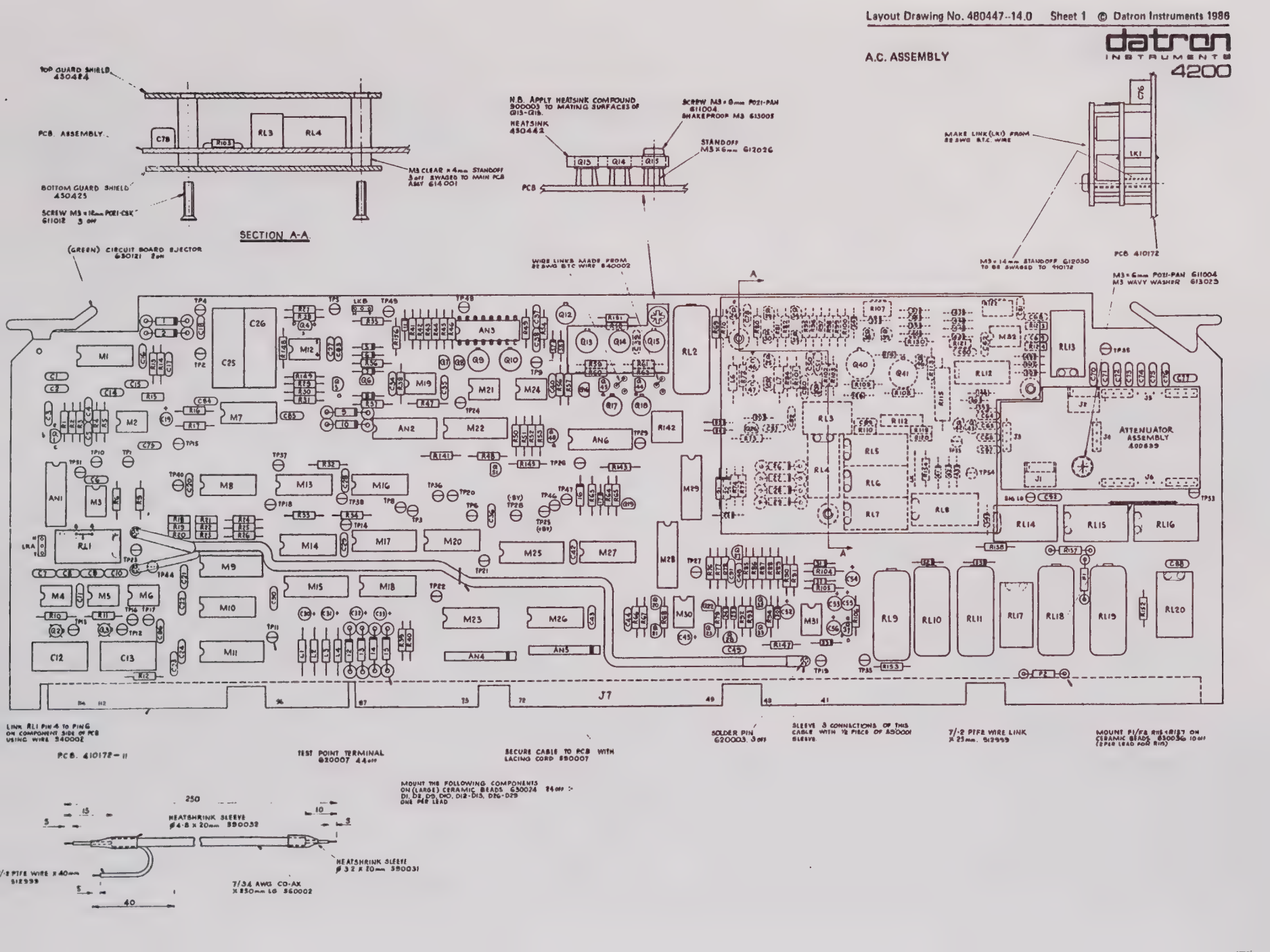
4200

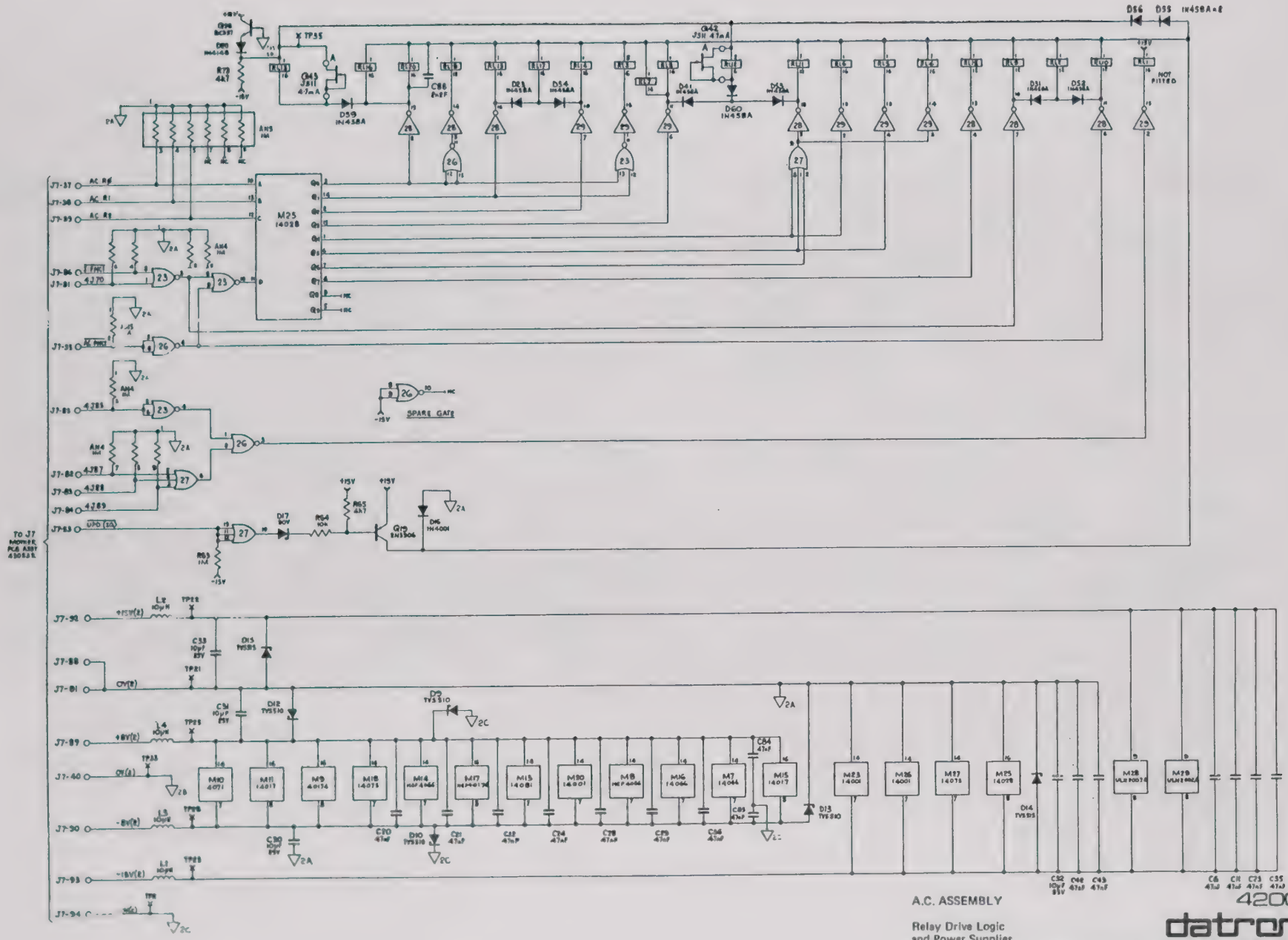
datron INSTRUMENTS

Circuit Diagram No 430447-14.0 Sheet 4 © Datron Instruments 1986

datron INSTRUMENTS 4200

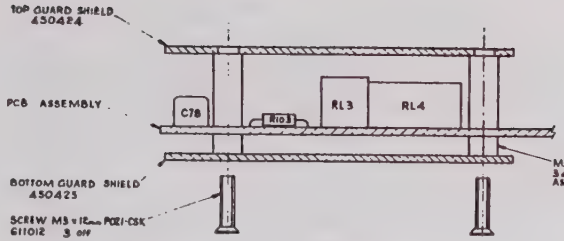
A.C. ASSEMBLY


TOP GUARD SHIELD 450424
PCB ASSEMBLY
BOTTOM GUARD SHIELD 450425
SCREW M3 x 16mm POZI-CSK 611012 3 off
M3 CLEAR x 4mm STANDOFF 3 off SWAGED TO MAIN PCB ASSY 614001
SECTION A-A
(GREEN) CIRCUIT BOARD EJECTOR 650121 2 off
N.B. APPLY HEATSINK COMPOUND 900003 TO MATING SURFACES OF Q13-Q15.
HEATSINK 450442
SCREW M3 x 8mm POZI-PAN 611004
SHAKEPROOF M3 613005
STANDOFF M3 x 6mm G12026
PCB
MAKE LINK (LK1) FROM 22 SWG BTC WIRE
PCB 410172
M3 x 14mm STANDOFF G12030 TO BE SWAGED TO 410172
M3 x 6mm POZI-PAN 611004
M3 WAVY WASHER 613025
WIRE LINKS MADE FROM 22 SWG BTC WIRE 840002
ATTENUATOR ASSEMBLY 400639
LINK RL1 PIN 4 TO PIN 6 ON COMPONENT SIDE OF PCB USING WIRE 840002
PCB. 410172-11
TEST POINT TERMINAL 620007 44 off
SECURE CABLE TO PCB WITH LACING CORD 850007
SOLDER PIN 620003. 3 off
SLEEVE 3 CONNECTIONS OF THIS CABLE WITH ½ PIECE OF A90001 SLEEVE.
7/·2 PTFE WIRE LINK X 25mm. 512959
MOUNT PI/F8 RH5·1R87 ON CERAMIC BEADS 630036 10 off (SPARE LEAD FOR R15)
MOUNT THE FOLLOWING COMPONENTS ON (LARGE) CERAMIC BEADS 630024 24 off :- D1, D2, D9, D10, D12-D15, D26-D29 ONE END LEAD
HEATSHRINK SLEEVE ø4·8 x 20mm 590032
HEATSHRINK SLEEVE ø 3·2 x 10mm 590031
7/·2 PTFE WIRE x 40mm SIZE959
7/36 AWG CO-AX X 850mm LG 560002

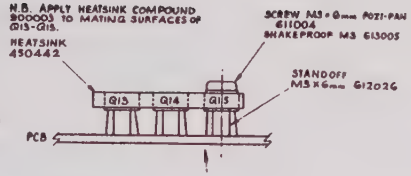

A.C. ASSEMBLY
Relay Drive Logic
and Power Supplies
4200
datron INSTRUMENTS
Circuit Diagram No. 430447-14 0 Sheet 5 © Datron Instruments 1986

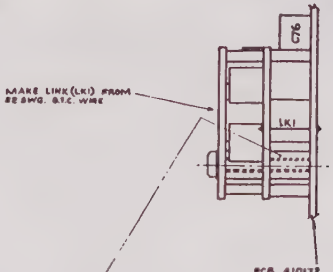
A.C. ASSEMBLY

datron INSTRUMENTS 4200



SECTION A-A.

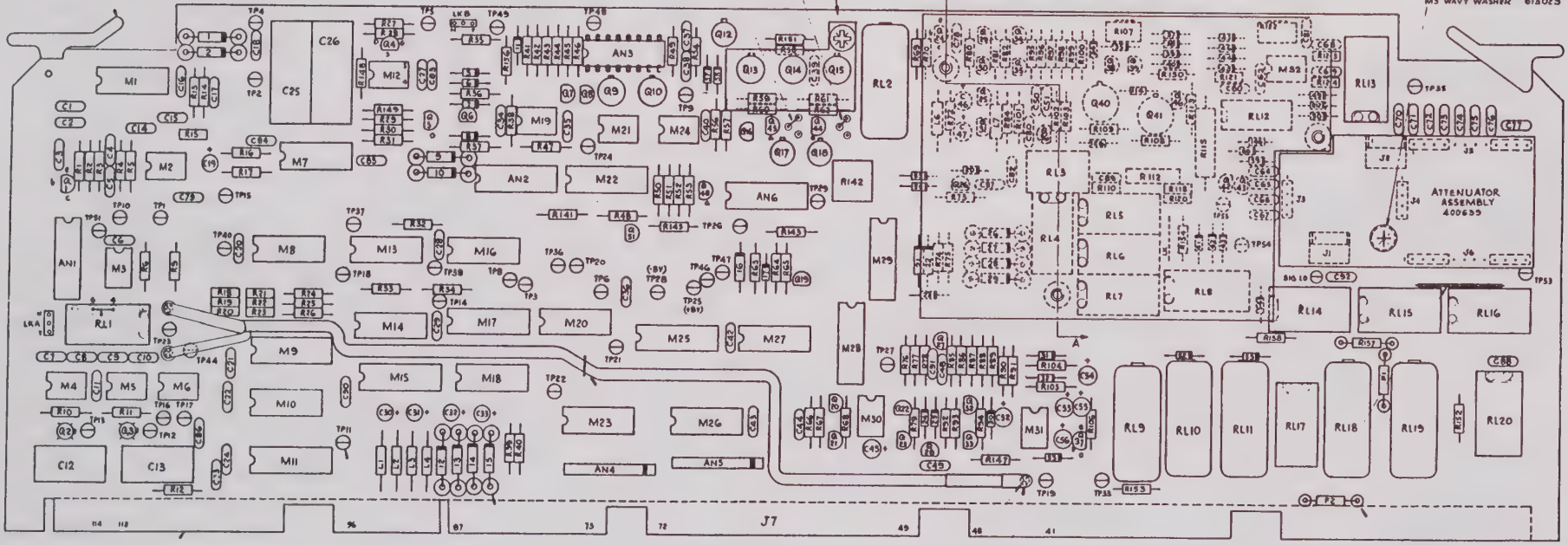




(GREEN) CIRCUIT BOARD EJECTOR 630121 2 off

WIRE LINKS MADE FROM 22 SWG BTC WIRE 540002

M3 x 6mm POZI-PAN 611004 M3 WAVY WASHER 613025



LINK RL1 PIN 4 TO PIN 6 ON COMPONENT SIDE OF PCB USING WIRE 540002

PCB. 410172-11

TEST POINT TERMINAL 620007 44 off

SECURE CABLE TO PCB WITH LACING CORD 590007

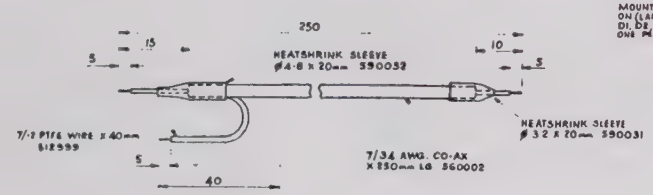
SOLDER PIN 620003 3 off

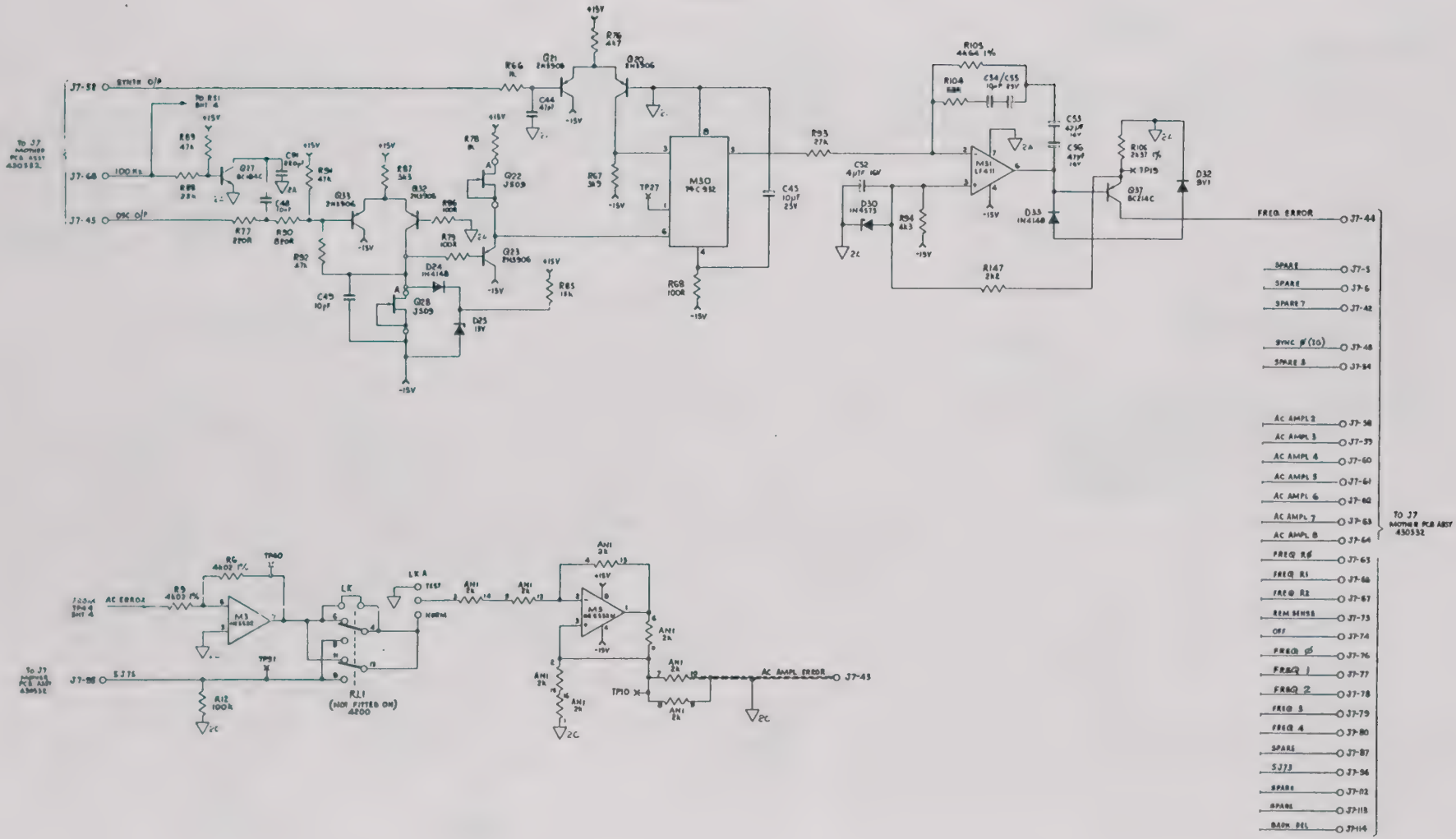
SLEEVE 3 CONNECTIONS OF THIS CABLE WITH ½ PIECE OF 350001 SLEEVE

7/·2 PTFE WIRE LINK X 23mm 512959

MOUNT R1/R8 RH5·1R87 ON CERAMIC BEADS 630036 10 off (SPARE LEAD FOR R15)

MOUNT THE FOLLOWING COMPONENTS ON (LARGE) CERAMIC BEADS 630024 24 off :- D1, D2, D9, D10, D12-D15, D26-D29 ONE END LEAD





C41, R7, R8 — NOT FITTED

A.C. ASSEMBLY

4200

Phase Detector & Integrator and Power Supplies

datron INSTRUMENTS

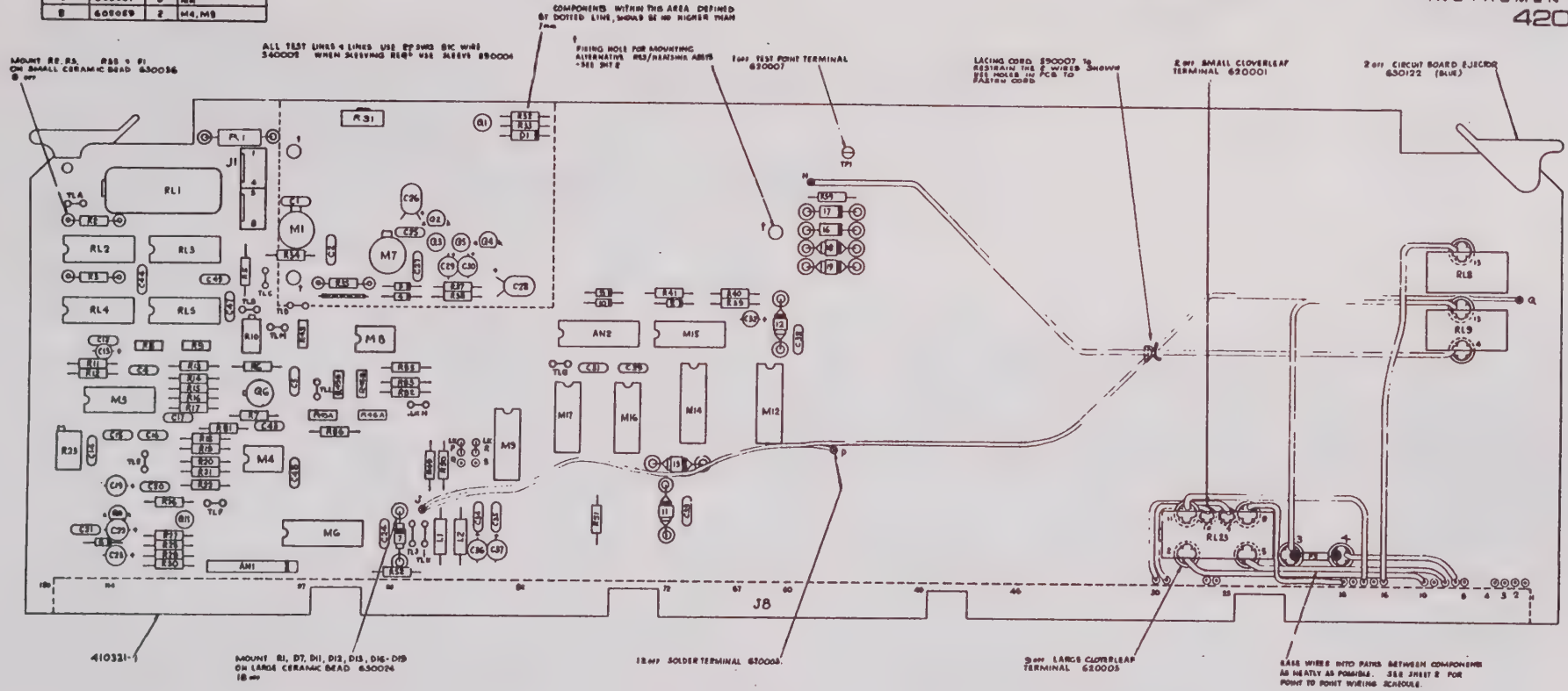
Circuit Diagram No. 430447-14.0 Sheet 6 © Datron Instruments 1986

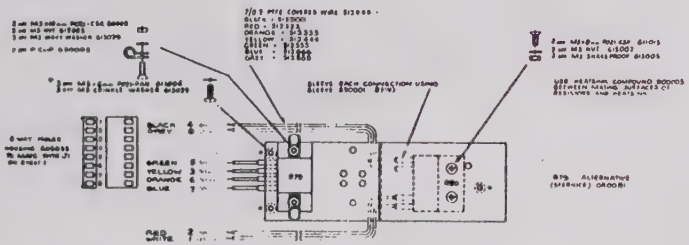
 © Datron Instruments 1986

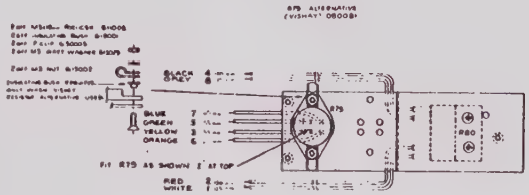
datron INSTRUMENTS 4200

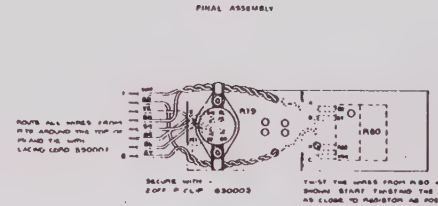
CURRENT ASSEMBLY

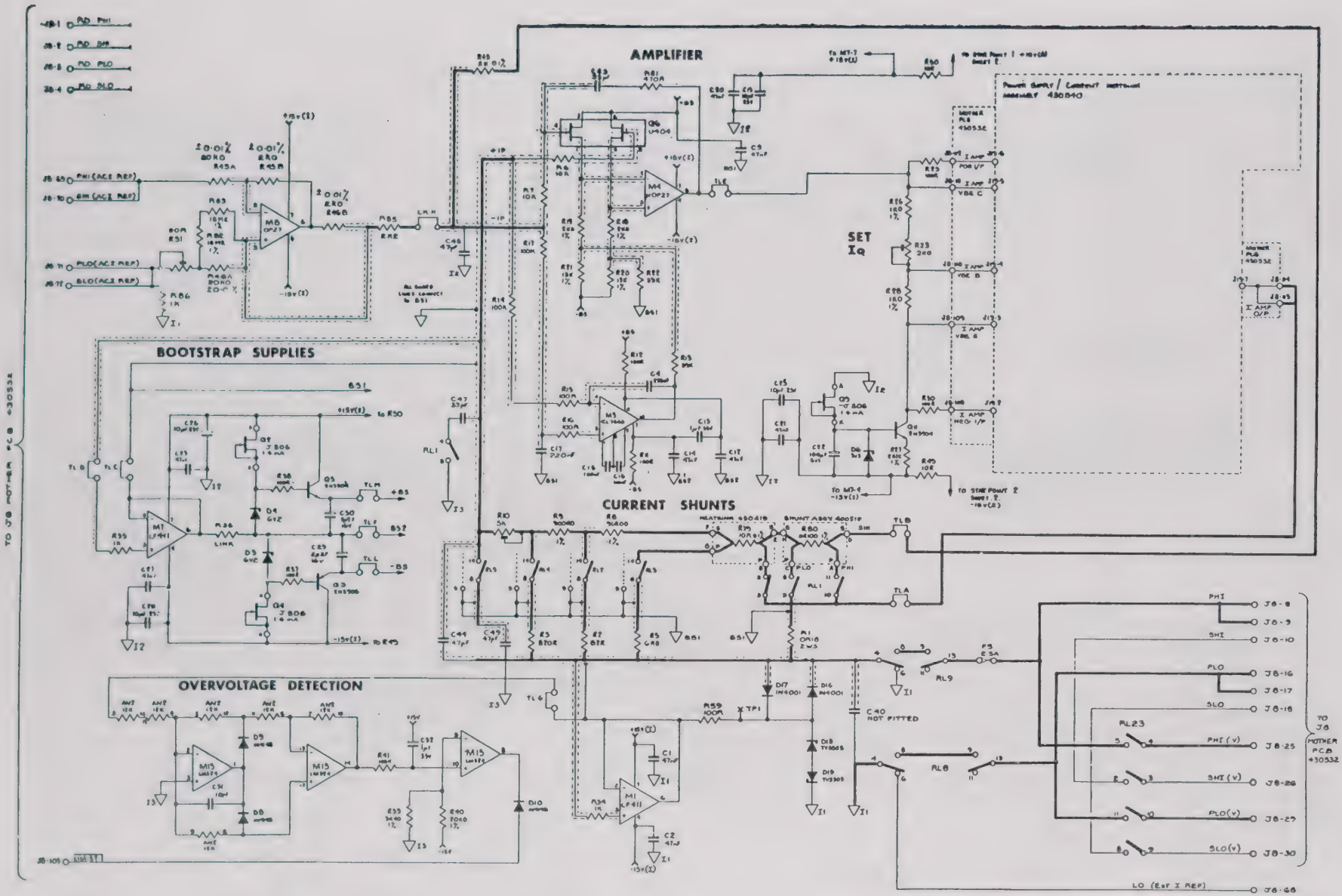
MOUNTING ICs		
No OF WIRES	PART No	No OFF
14	603060	8
16	603061	6
8	603059	2


COMPONENTS WITHIN THIS AREA DEFINED BY DOTTED LINE, SHOULD BE NO HIGHER THAN 7mm
ALL TEST LINES & LINES USE 22 SWG BK WIRE 340005 WHEN SLEEVING REQ'D USE SLEEVE 850004
FIXING HOLE FOR MOUNTING ALTERNATIVE RES/HEATSINK ASSY +SEE DET E
1 off TEST POINT TERMINAL 620007
LACING CORD 590007 to RESTRAIN THIS & WIRES SHOWN PASS HOLES IN PCB TO PATTERN CORD
8 off SMALL CLOVERLEAF TERMINAL 620001
2 off CIRCUIT BOARD EJECTOR 630122 (BLUE)
MOUNT RE, R5, R35 & R1 ON SMALL CERAMIC BEAD 630036
8 off
J8
410321-1
MOUNT R1, D7, D11, D12, D13, D16-D19 ON LARGE CERAMIC BEAD 630024
18 off
12 off SOLDER TERMINAL 620003
9 off LARGE CLOVERLEAF TERMINAL 620003
BASE WIRES INTO PATHS BETWEEN COMPONENTS AS NEATLY AS POSSIBLE. SEE SHEET 2 FOR POINT TO POINT WIRING SCHEDULE.
NB ALL CONNECTIONS TO SOLDER PINS TO BE SLEEVED, USE SLEEVE 380001 (4")









CURRENT ASSEMBLY

Voltage-to-Current Converter

4200

datron INSTRUMENTS

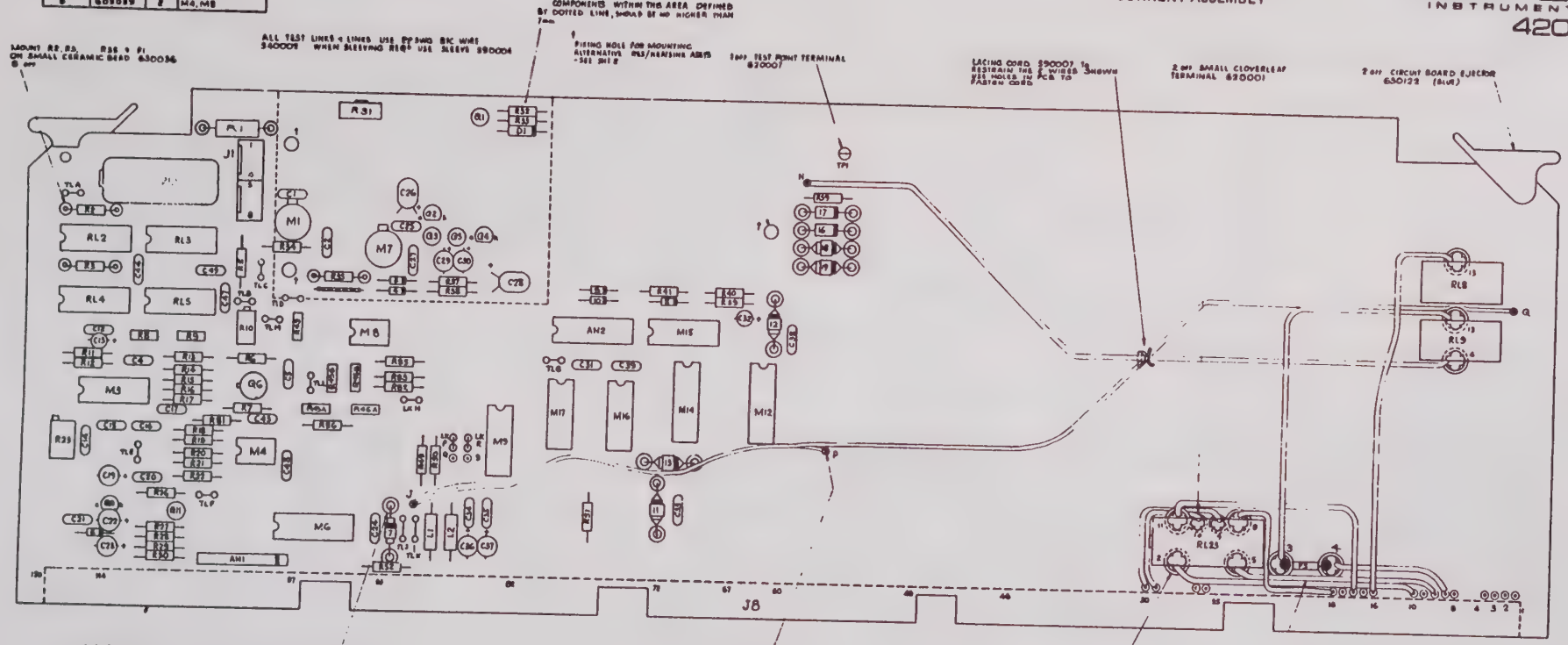
Circuit Diagram No. 430555-8.0 Sheet 1 © Datron Instruments 1986

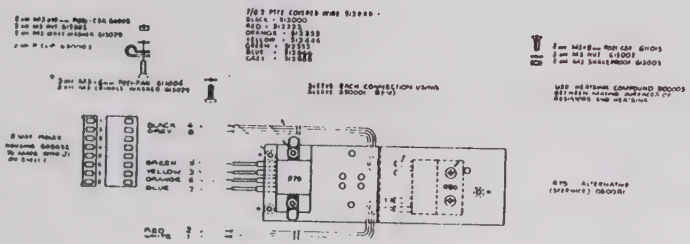
 © Datron Instruments 1986

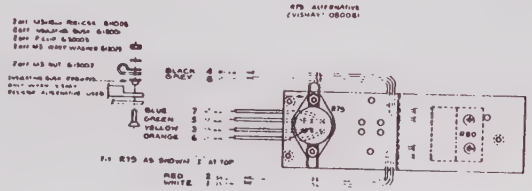
datron INSTRUMENTS 4200

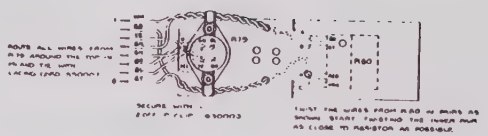
CURRENT ASSEMBLY

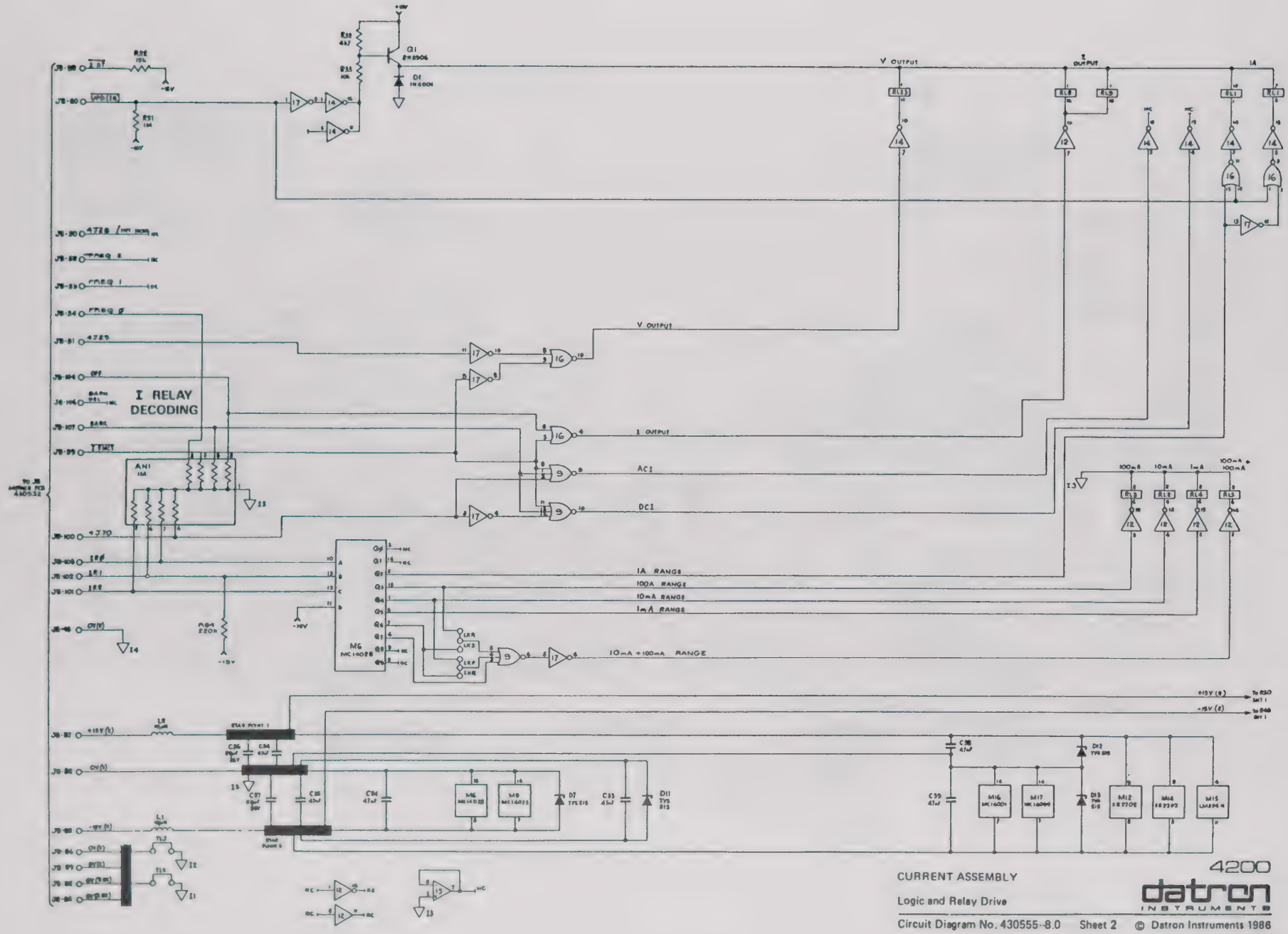
MOUNTING ECs			
No OF WIRES	PART No	No OFF	
14	603060	5	M5, M9, M13, M16, M17
16	603061	3	M6, M8, M15
8	603059	2	M4, M12


COMPONENTS WITHIN THIS AREA DEFINED BY DOTTED LINE, SHOULD BE NO HIGHER THAN 7mm
ALL TEST LINKS 4 LINES USE 22 SWG BK WIRE 560009 WHEN SLEEVING REQ'D USE SLEEVE 590004
MOUNT R2, R3, R35 & R1 ON SMALL CERAMIC BEAD 630036 6 OFF
FIXING HOLE FOR MOUNTING ALTERNATIVE PCB/HEATSINK ASSYS - SEE SHT 2
1 OFF TEST POINT TERMINAL 620007
LACING CORD 590007 TO RESTRAIN THE 2 WIRES SHOWN FASTEN CORD
2 OFF SMALL CLOVERLEAF TERMINAL 620001
2 OFF CIRCUIT BOARD EJECTOR 650122 (BLUE)
J8
410321-1
MOUNT R1, D7, D11, D12, D13, D16-D19 ON LARGE CERAMIC BEAD 630024 10 OFF
12 OFF SOLDER TERMINAL 620008
NB ALL CONNECTIONS TO SOLDER PINS TO BE SLEEVED, USE SLEEVE 590001 (6ft),
2 OFF LARGE CLOVERLEAF TERMINAL 620005
BASE WIRES INTO PATHS BETWEEN COMPONENTS AS NEATLY AS POSSIBLE. SEE SHEET 2 FOR POINT TO POINT WIRING SCHEDULE



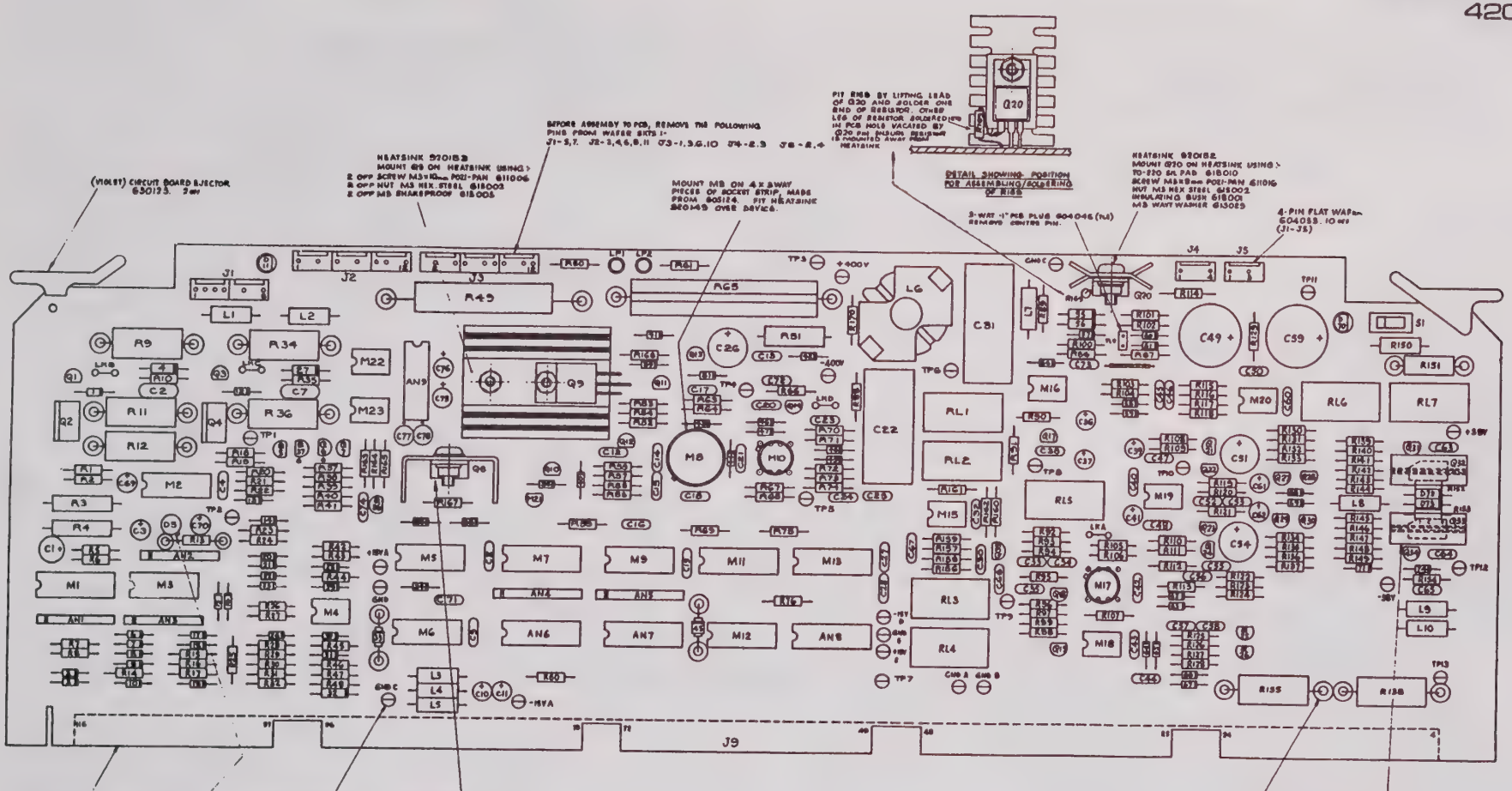





I RELAY DECODING
V OUTPUT
I OUTPUT
1A
ACI
DCI
1A RANGE
100A RANGE
10mA RANGE
1mA RANGE
10mA +100mA RANGE
CURRENT ASSEMBLY
Logic and Relay Drive
Circuit Diagram No. 430555-8.0 Sheet 2
© Datron Instruments 1986
4200
datron
INSTRUMENTS

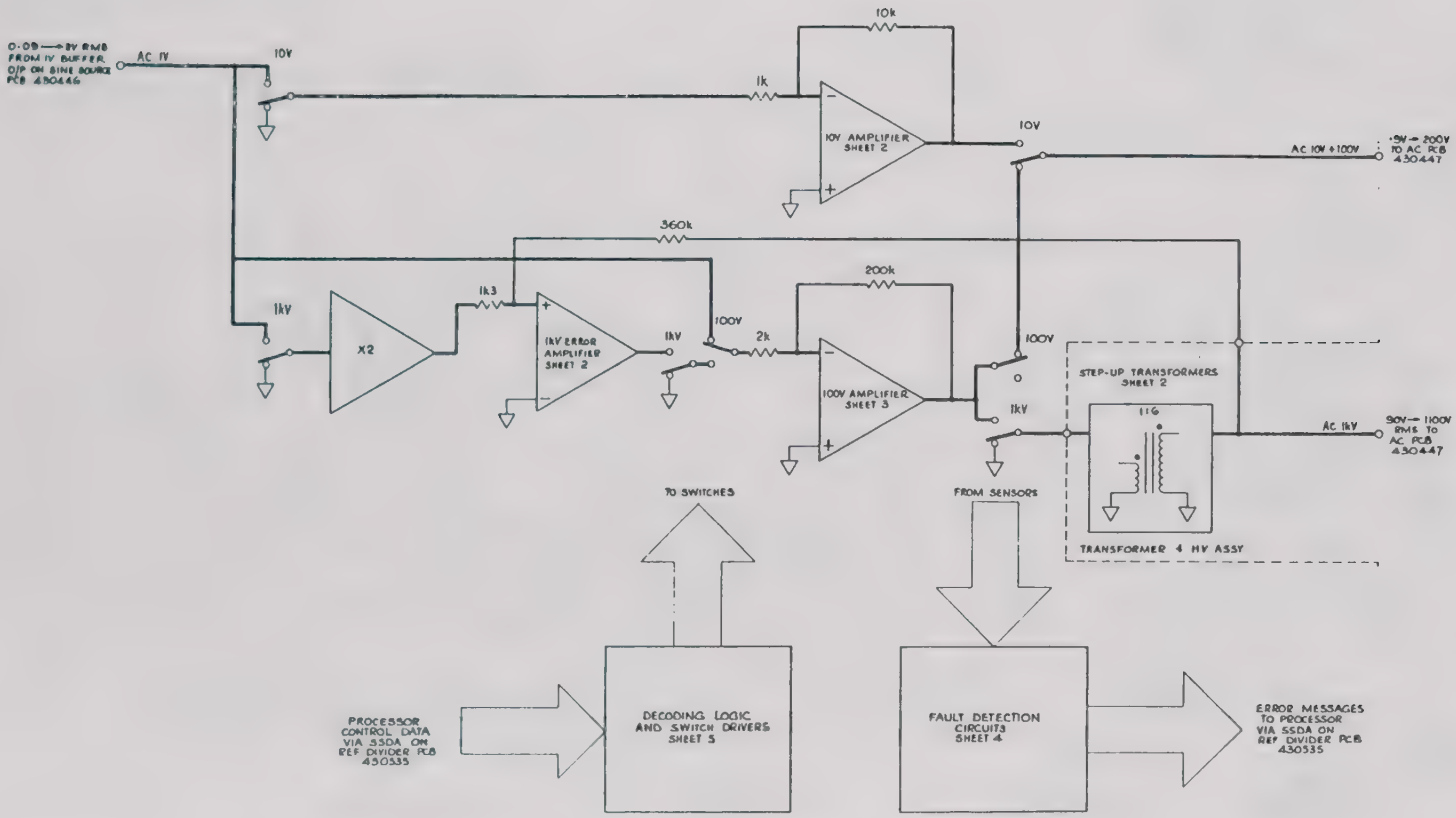
datron INSTRUMENTS 4200

POWER AMPLIFIER ASSEMBLY



MOUNTING IC's.			
NO OF WAYS	PART NO	NO OFF	WHERE USED
8	605095/A	8	M4, M6, M18, M19, M20, M15, M22, M28
14	605060/A	6	M2, M3, M5, M9, M8, M12.
16	605061/A	4	M1, M7, M11, M13

MOUNTING BEADS 630024 (20 OFF)	
BEADS PER LEAD	COMPONENTS
1	R109, D33, D45, R13.
2	R9, R11, R12, R34, R36, R138, R151, R155
3	R49, R65.



POWER AMPLIFIER ASSEMBLY

Block Diagram

4200

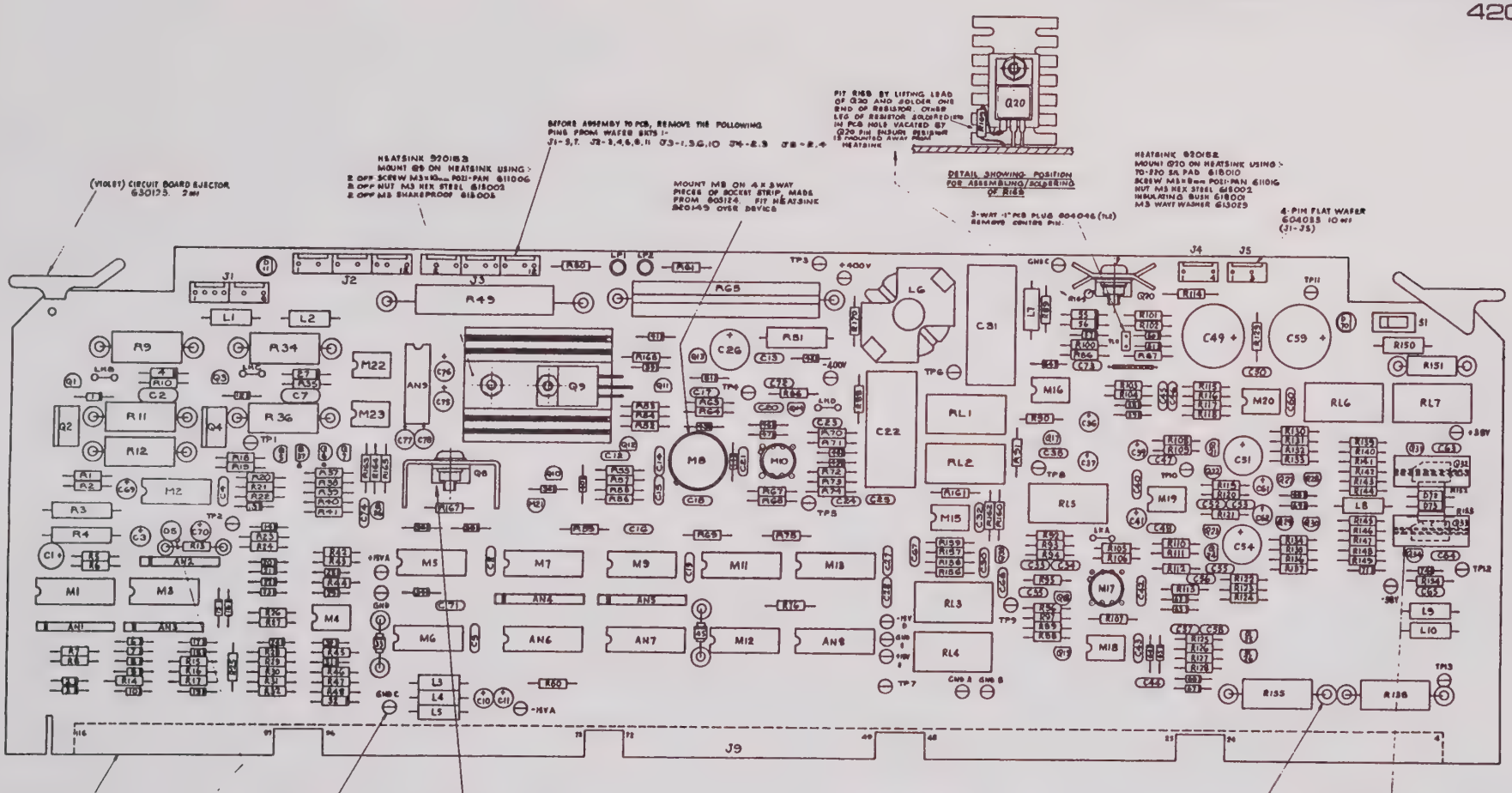
datron INSTRUMENTS

Circuit Diagram No. 430450-10.0 Sheet 1 © Datron Instruments 1986

 © Datron Instruments 1986

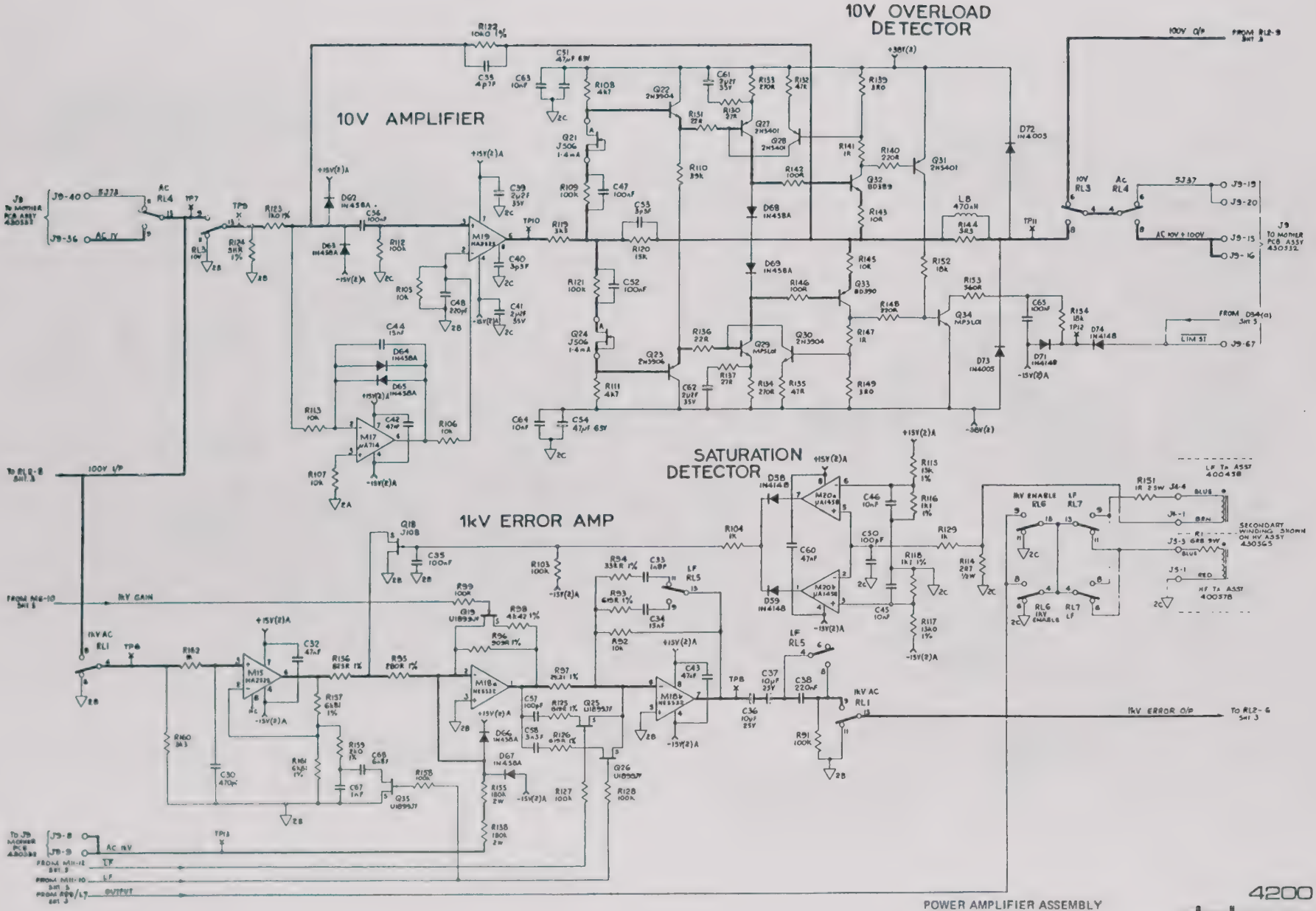
POWER AMPLIFIER ASSEMBLY

datron INSTRUMENTS 4200



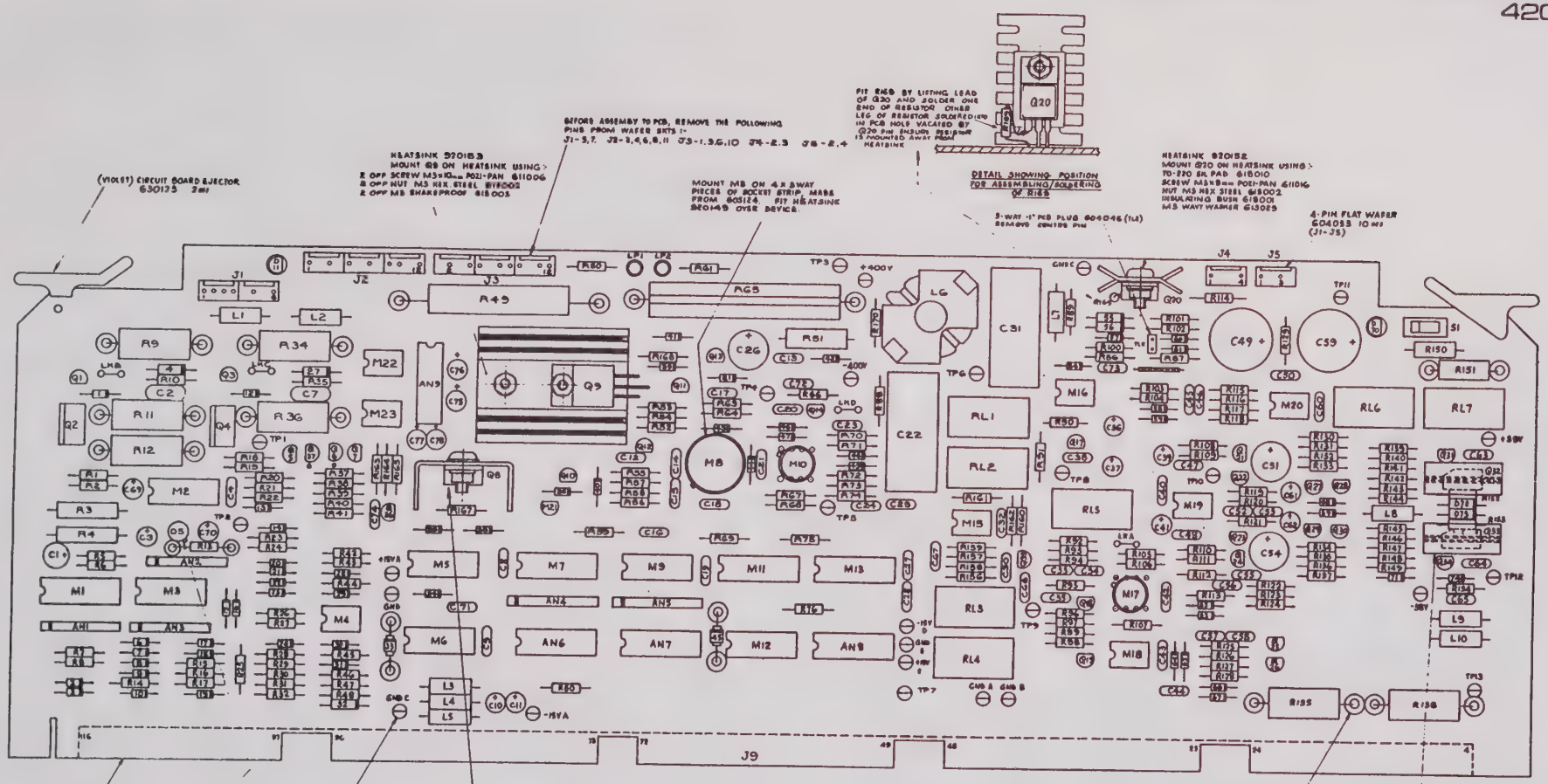
MOUNTING IC's			
No OF WAYS	PART No	No OFF	WHERE USED
8	605059/A	8	M4, M6, M18, M19, M20, M19, M22, M23
14	605060/A	6	M2, M3, M5, M8, M9, M13.
16	605061/A	4	M1, M7, M11, M15

MOUNTING BEADS 630024 (20 off)	
BEADS PER LEAD	COMPONENTS
1	R109, D33, D45, R13.
2	R9, R11, R12, R34, R36, R138, R151, R155
3	R49, R65


10V OVERLOAD DETECTOR
10V AMPLIFIER
SATURATION DETECTOR
1kV ERROR AMP
100V O/P
1kV GAIN
1kV AC
1kV ENABLE
LF
AC 10V + 100V
LIM ST
1kV ERROR O/P
AC 1kV
POWER AMPLIFIER ASSEMBLY
10V and 1kV Amplifiers
4200
datron INSTRUMENTS
Circuit Diagram No. 430450-10.0 Sheet 2 © Datron Instruments 1986

POWER AMPLIFIER ASSEMBLY

datron INSTRUMENTS 4200

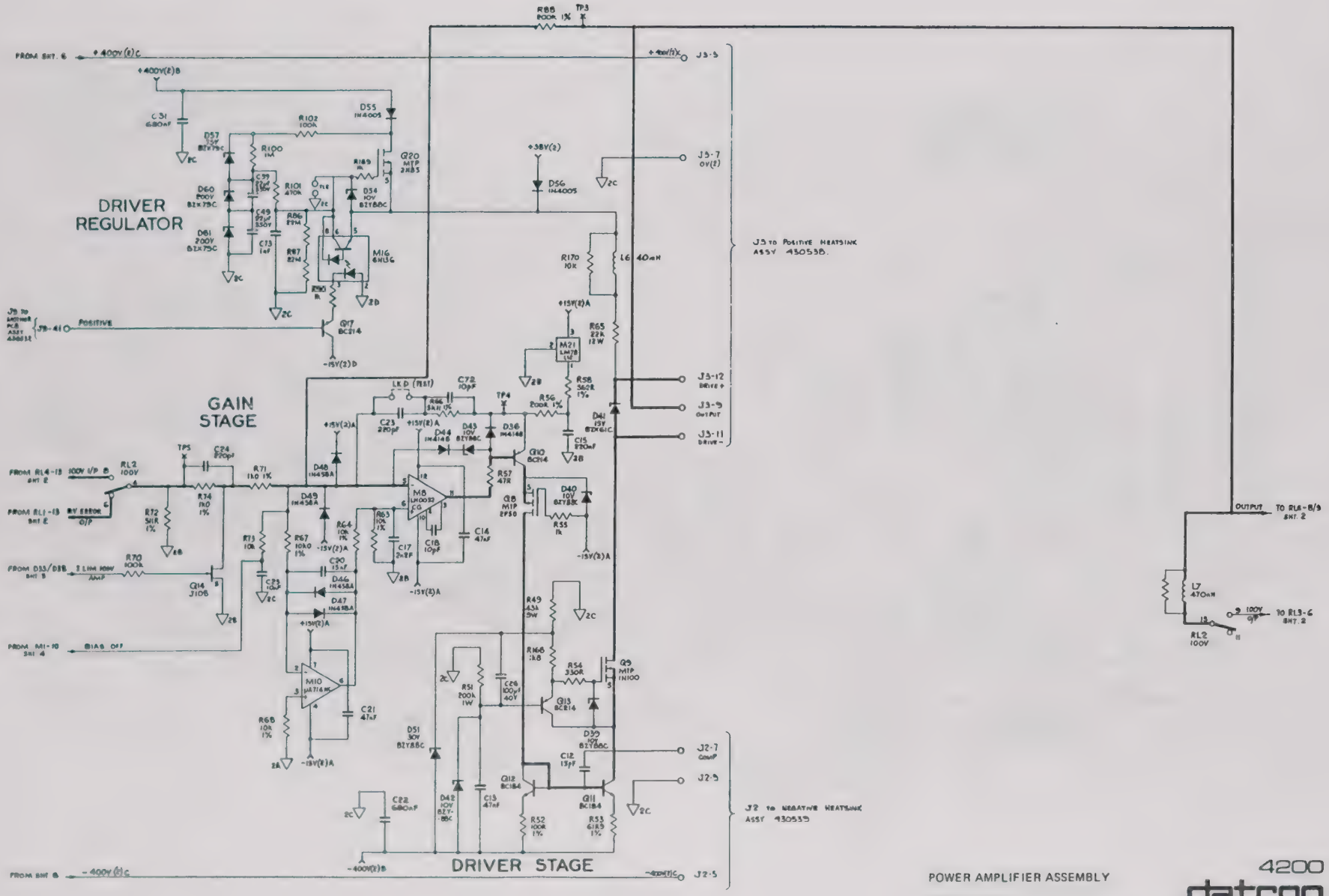


MOUNTING IC's

No OF WAYS	PART No	No OFF	WHERE USED
8	605059/A	8	M4, M6, M18, M19, M30, M18, M22, M28
14	605060/A	6	M2, M3, M5, M8, M9, M12.
16	605061/A	4	M1, M7, M11, M13

MOUNTING BEADS 630024 (20 off)

BEADS PER LEAD	COMPONENTS
1	R109, 033, 045, R13.
2	R9, R11, R12, R34, R36, R138, R151, R155
3	R49, R65



POWER AMPLIFIER ASSEMBLY

100V Amplifier

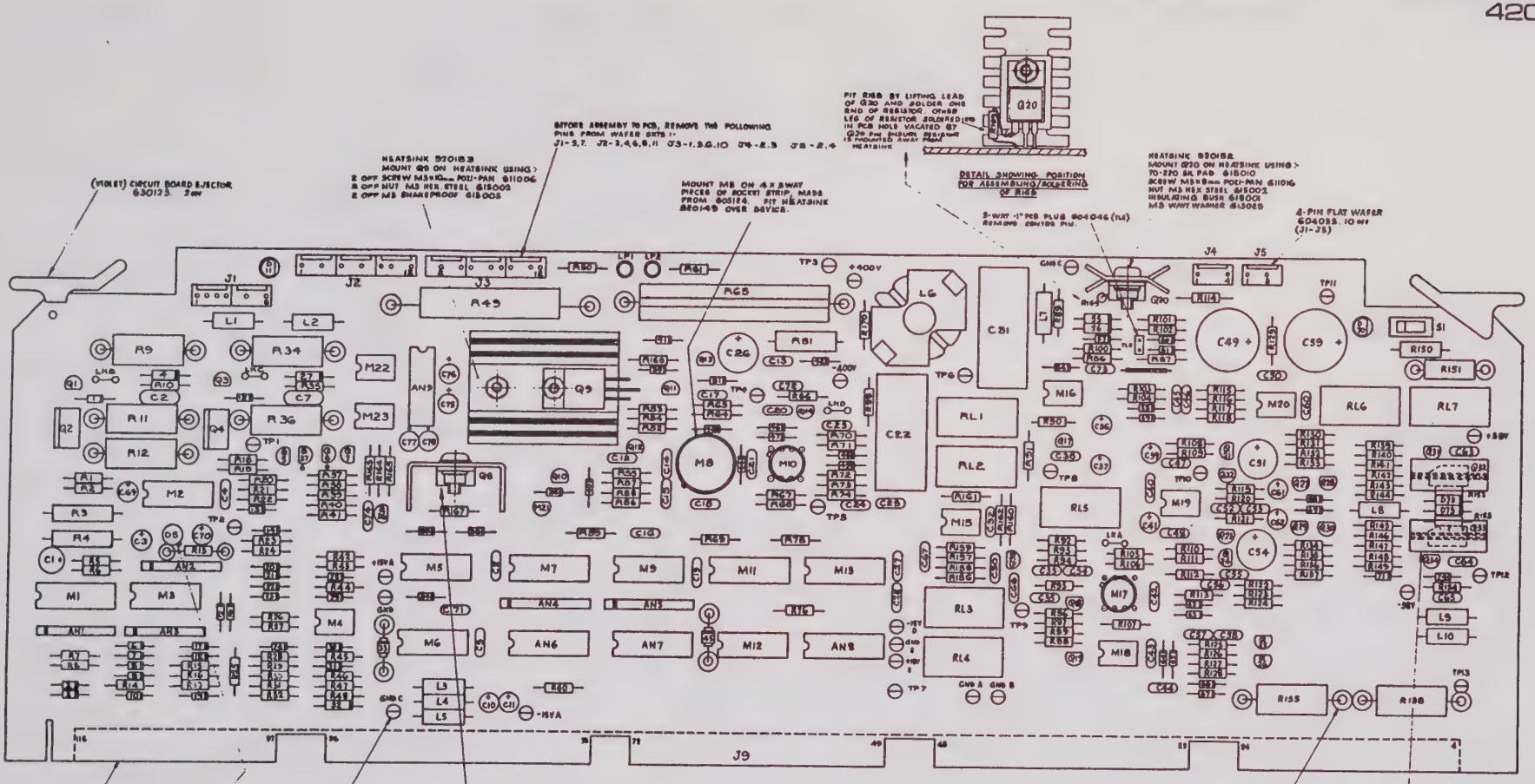
4200

datron INSTRUMENTS

Circuit Diagram No. 430450--10.0 Sheet 3 © Datron Instruments 1986

datron INSTRUMENTS 4200

POWER AMPLIFIER ASSEMBLY



PCB 410253-5

MOUNT DS ON TOIS MOUNTING PAD 615004

TEST POINT TERMINAL 620007 27 off

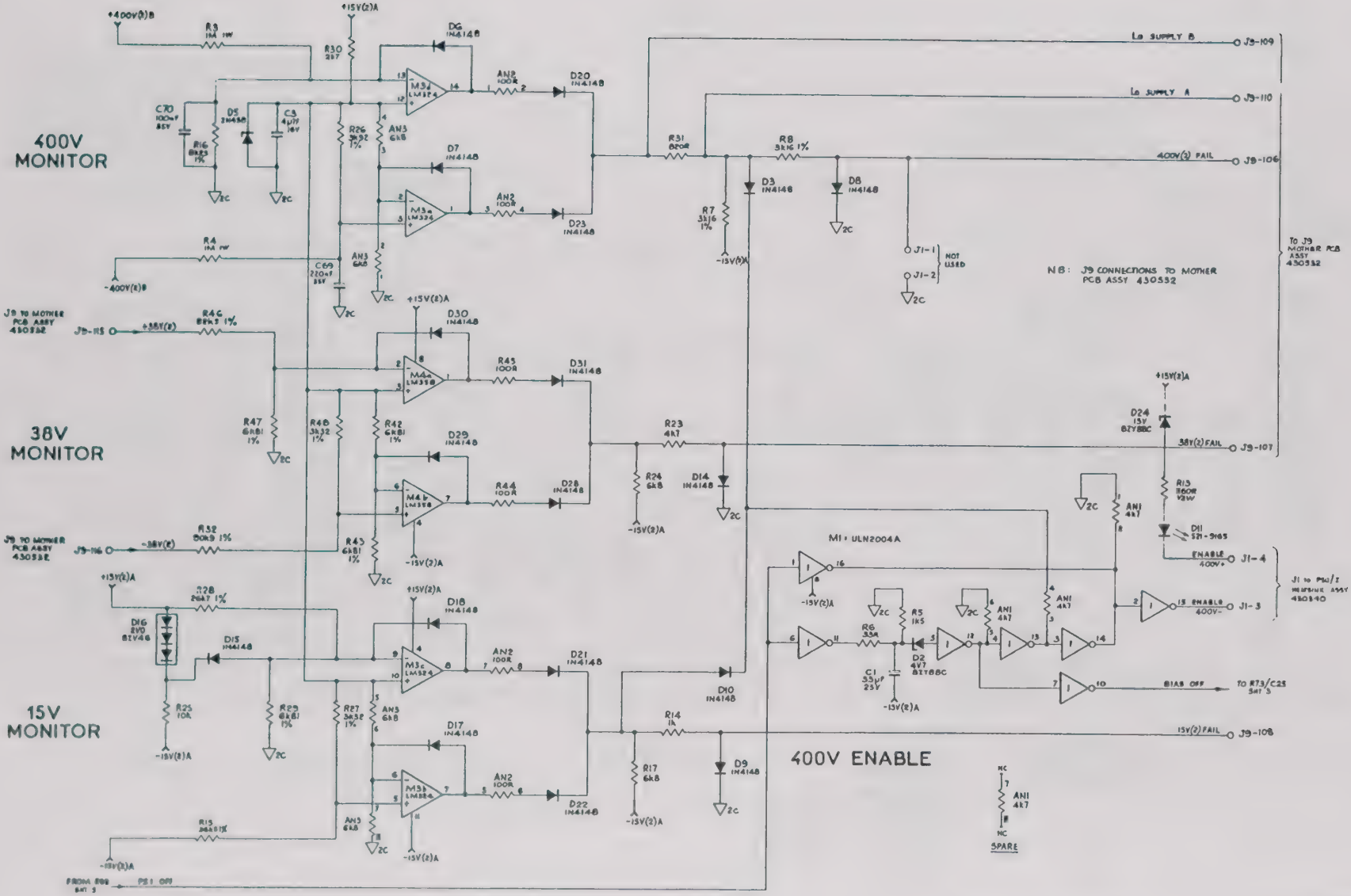
HEATSINK 920051 MOUNT Q8 ON HEATSINK USING > SCREW M3x8mm. POZI-PAN 611006 NUT M3 HEX STEEL 615002 M3 SHAKEPROOF 615005 M3 PLAIN WASHER 615007

N.B. MAKE ALL LINKS (LK6) FROM 22 SWG B.T.C. WIRE. 840002.

CLIP HEATSINK 920151 ON TO Q52 + Q53. 2 off.

MOUNTING IC's			
No OF WAYS	PART No	No OFF	WHERE USED
8	805059/A	8	M4, M6, M18, M19, M30, M18, M22, M28
14	805060/A	6	M12, M3, M5, M6, M9, M13.
16	805061/A	4	M1, M7, M11, M15

MOUNTING BEADS 630024 (30 off)	
BEADS PER LEAD	COMPONENTS
1	R109, D33, D45, R13.
2	R9, R11, R12, R34, R36, R138, R151, R155
3	R49, R65



POWER AMPLIFIER ASSEMBLY

Power Supply Monitors

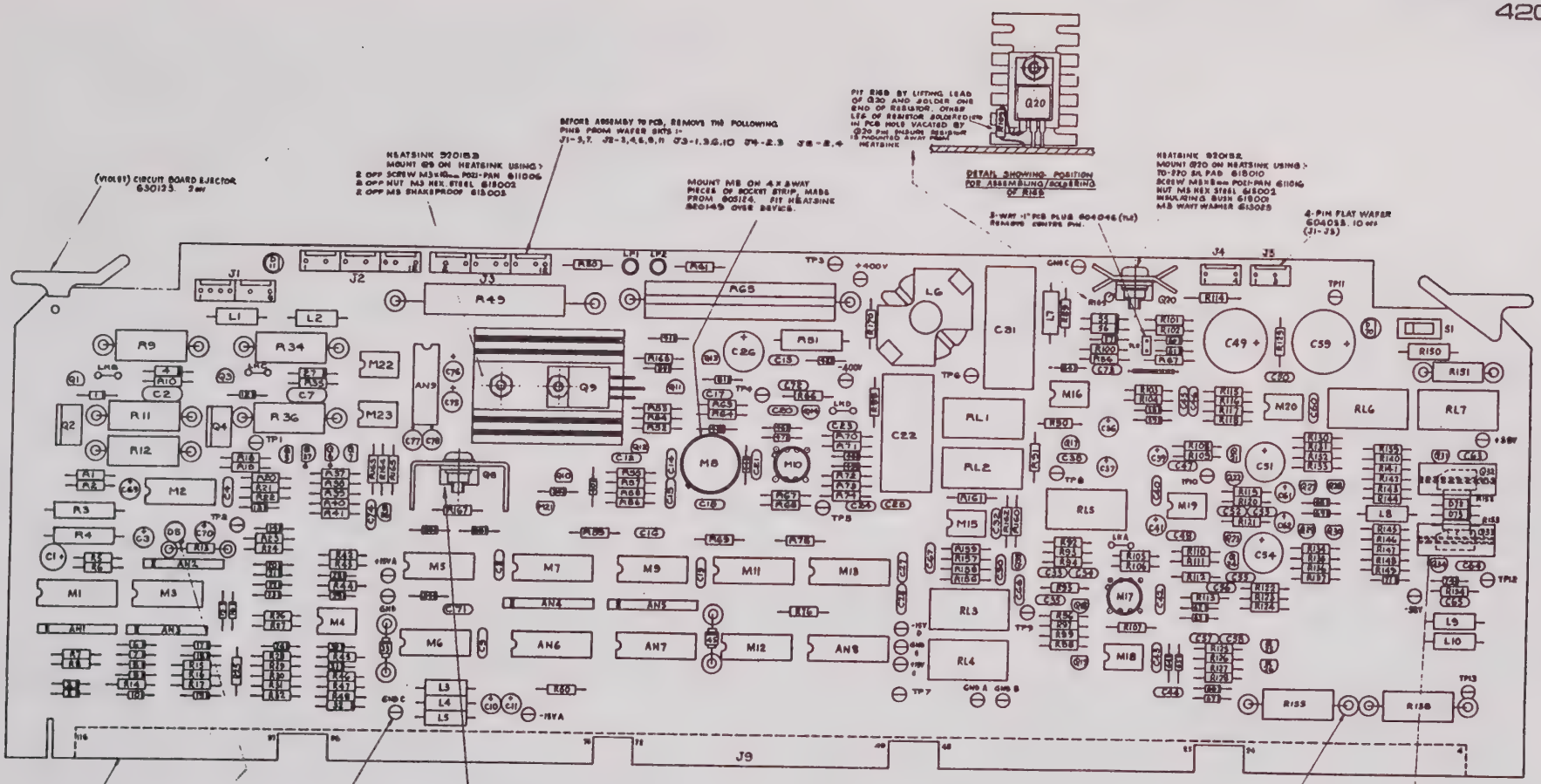
Circuit Diagram No. 430450-10.0 Sheet 4 © Datron Instruments 1986

4200

datron INSTRUMENTS

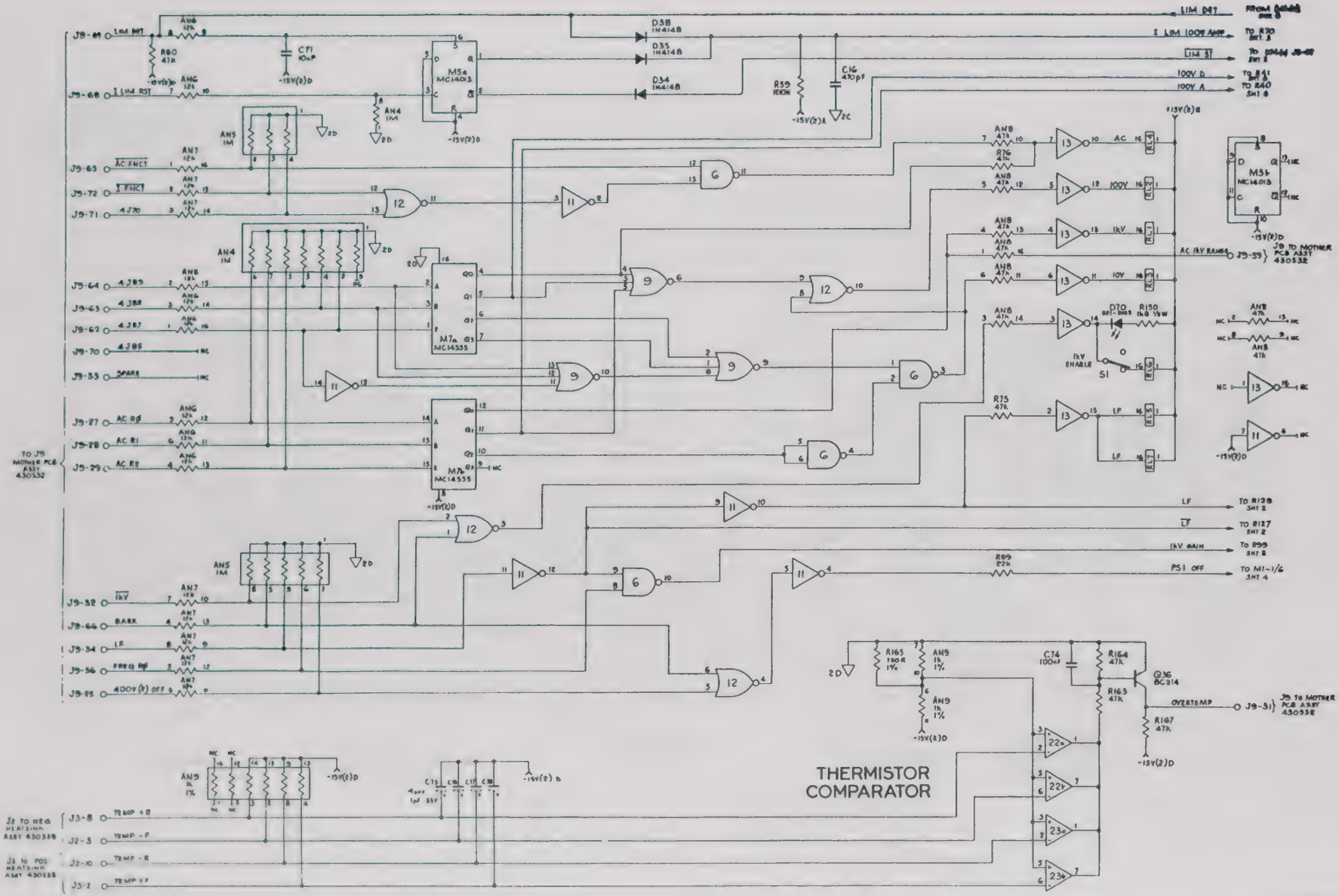
POWER AMPLIFIER ASSEMBLY

datron INSTRUMENTS 4200


HEATSINK 920183
MOUNT Q9 ON HEATSINK USING:-
2 OFF SCREW M3x10mm POZI-PAN 611006
2 OFF NUT M3 HEX. STEEL 618002
2 OFF M3 SHAKEPROOF 618003
BEFORE ASSEMBLY TO PCB, REMOVE THE FOLLOWING PINS FROM WAFER SKTS :-
J1-3,7. J2-3,4,6,8,11 J3-1,3,6,10 J4-2,3 J5-2,4
MOUNT M8 ON 4 x 8 WAY PIECES OF SOCKET STRIP, MADE FROM 605124. FIT HEATSINK 860149 OVER DEVICE.
FIT R168 BY LIFTING LEAD OF Q20 AND SOLDER ONE END OF RESISTOR. OTHER LEG OF RESISTOR SOLDERED TO IN PCB HOLE VACATED BY Q20 THE INSULATOR REQUIRED IS MOUNTED AWAY FROM HEATSINK
DETAIL SHOWING POSITION FOR ASSEMBLING/SOLDERING OF R168
HEATSINK 920182
MOUNT Q20 ON HEATSINK USING:-
TO-220 SIL PAD 618010
SCREW M3x8mm POZI-PAN 611006
NUT M3 HEX STEEL 618002
INSULATING BUSH 618001
M3 WAVY WASHER 613005
3-WAY "I" PCB PLUG 604046 (1off)
REMOVE CENTRE PIN.
4-PIN FLAT WAFER 604035. 10 off (J1-J5)
(VIOLET) CIRCUIT BOARD EJECTOR 630123. 2 off
PCB 410285-5
MOUNT DS ON TO92 MOUNTING PAD 618004
TEST POINT TERMINAL 620007 27 off
HEATSINK 920059
MOUNT Q8 ON HEATSINK USING:-
SCREW M3x8mm POZI-PAN 611006
NUT M3 HEX. STEEL 618002
M3 SHAKEPROOF 618003
M3 PLAIN WASHER 618007
N.B. MAKE ALL LINKS (LK6) FROM 22 SWG P.V.C. WIRE. 540002
CLIP HEATSINK 920181 ON TO Q32 + Q33. 2 off.
J1 J2 J3 J4 J5 J9
L1 L2 L3 L4 L5 L6 L7 L8 L9 L10
LP1 LP2
R9 R34 R11 R36 R12 R45 R65 R81 R150 R151
C2 C7 C22 C26 C31 C49 C59 C51 C54
Q1 Q2 Q3 Q4 Q8 Q9 Q20
M1 M2 M3 M4 M5 M6 M7 M8 M9 M10 M11 M12 M15 M16 M17 M18 M19 M20 M22 M23
AN1 AN2 AN3 AN4 AN5 AN6 AN7 AN8 AN9
RL1 RL2 RL3 RL4 RL5 RL6 RL7
DS1 DS2
TP1 TP2 TP3 TP6 TP7 TP8 TP9 TP10 TP11 TP12 TP13
+400V -400V +15VA -15VA +15VB -15VB +30V -30V
GND A GND B GND C GND D
S1

MOUNTING IC's.			
No OF WAYS	PART No	No OFF	WHERE USED.
8	605059/A	8	M4, M6, M10, M19, M20, M13, M22, M23
14	605060/A	6	M2, M3, M5, M9, M12, M21.
16	605061/A	4	M1, M7, M11, M18

MOUNTING BEADS 630024 (30 off)	
BEADS PER LEAD	COMPONENTS
1	R109, D33, D45, R13.
2	R9, R11, R12, R34, R36, R138, R151, R155
3	R49, R65



POWER AMPLIFIER ASSEMBLY

4200

datron INSTRUMENTS

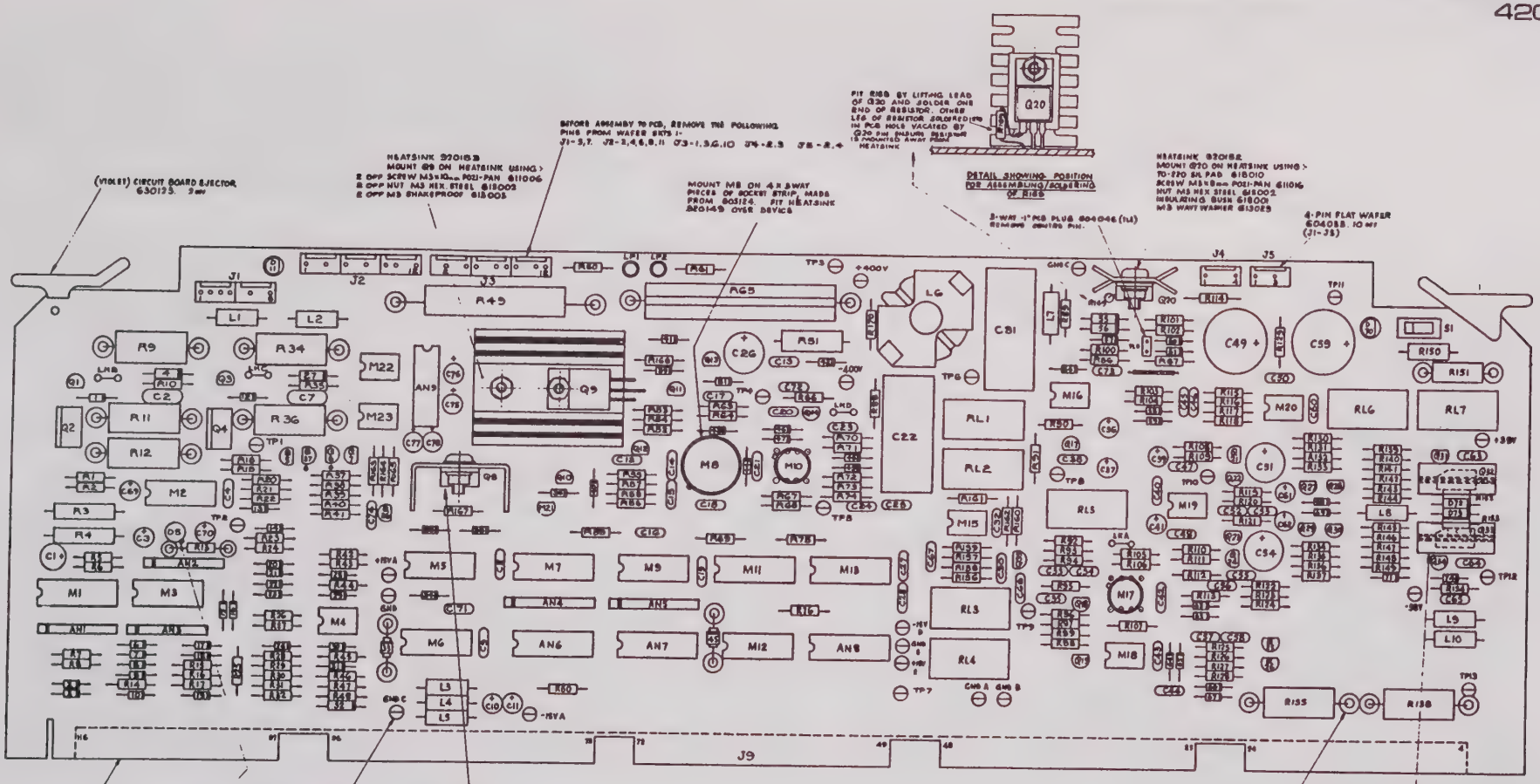
Logic and Relay Drives

Circuit Diagram No. 430450-10.0 Sheet 5 © Datron Instruments 1986

datron INSTRUMENTS

POWER AMPLIFIER ASSEMBLY

4200



PCB 410253-5

MOUNT D5 ON TO8 MOUNTING PAD 618004

TEST POINT TERMINAL 630007 27 OFF

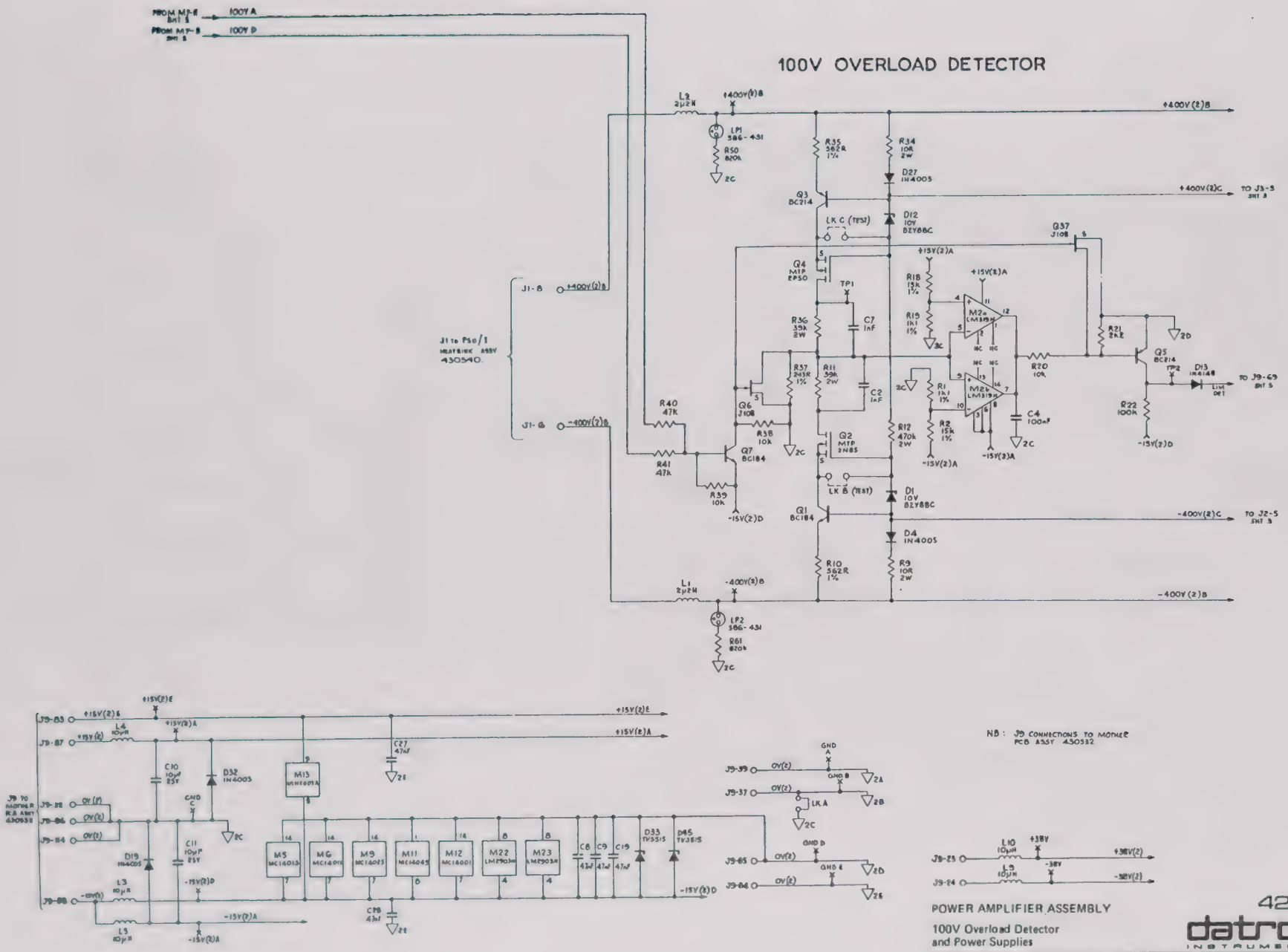
HEATSINK 920091 MOUNT Q8 ON HEATSINK USING > SCREW M3x8mm POZI-PAN 611016 NUT M3 HEX STEEL 615002 M3 SHAKEPROOF 618005 M3 PLAIN WASHER 618007

N.B. MAKE ALL LINKS (LK6) FROM 22 SWG P.T.F.E. WIRE. 540002

CLIP HEATSINK 920151 ON TO Q52 + Q56. 2 OFF.

MOUNTING IC's.			
No OF WAYS	PART No	No OFF	WHERE USED.
8	605093/A	8	M4, M6, M8, M13, M20, M15, M22, M23
14	605060/A	6	M2, M3, M5, M6, M9, M12.
16	605061/A	4	M1, M7, M11, M18

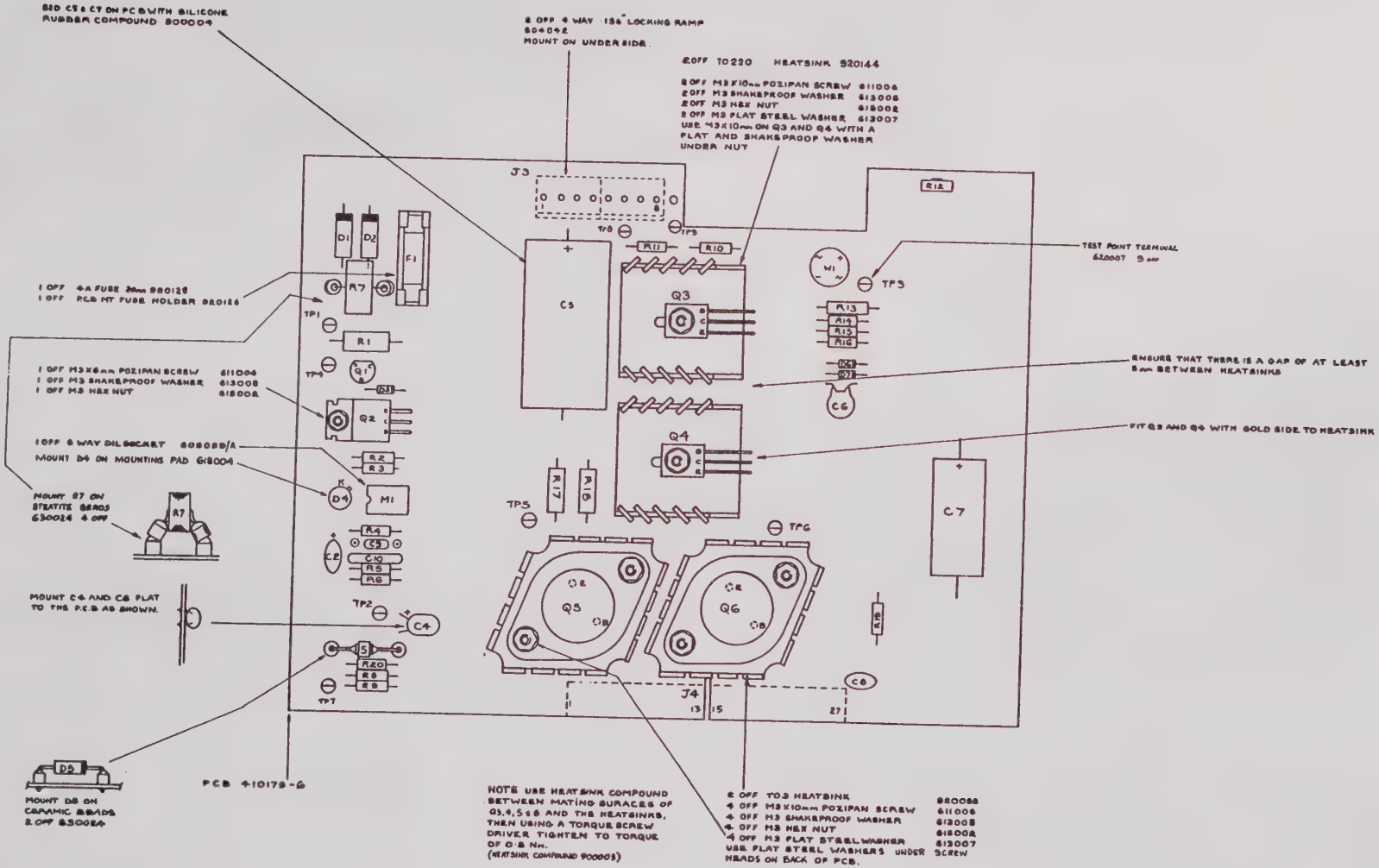
MOUNTING BEADS 630024 (90 OFF)	
BEADS PER LEAD	COMPONENTS
1	R109, D33, D45, R13.
2	R9, R11, R12, R34, R36, R138, R151, R155
3	R49, R45.

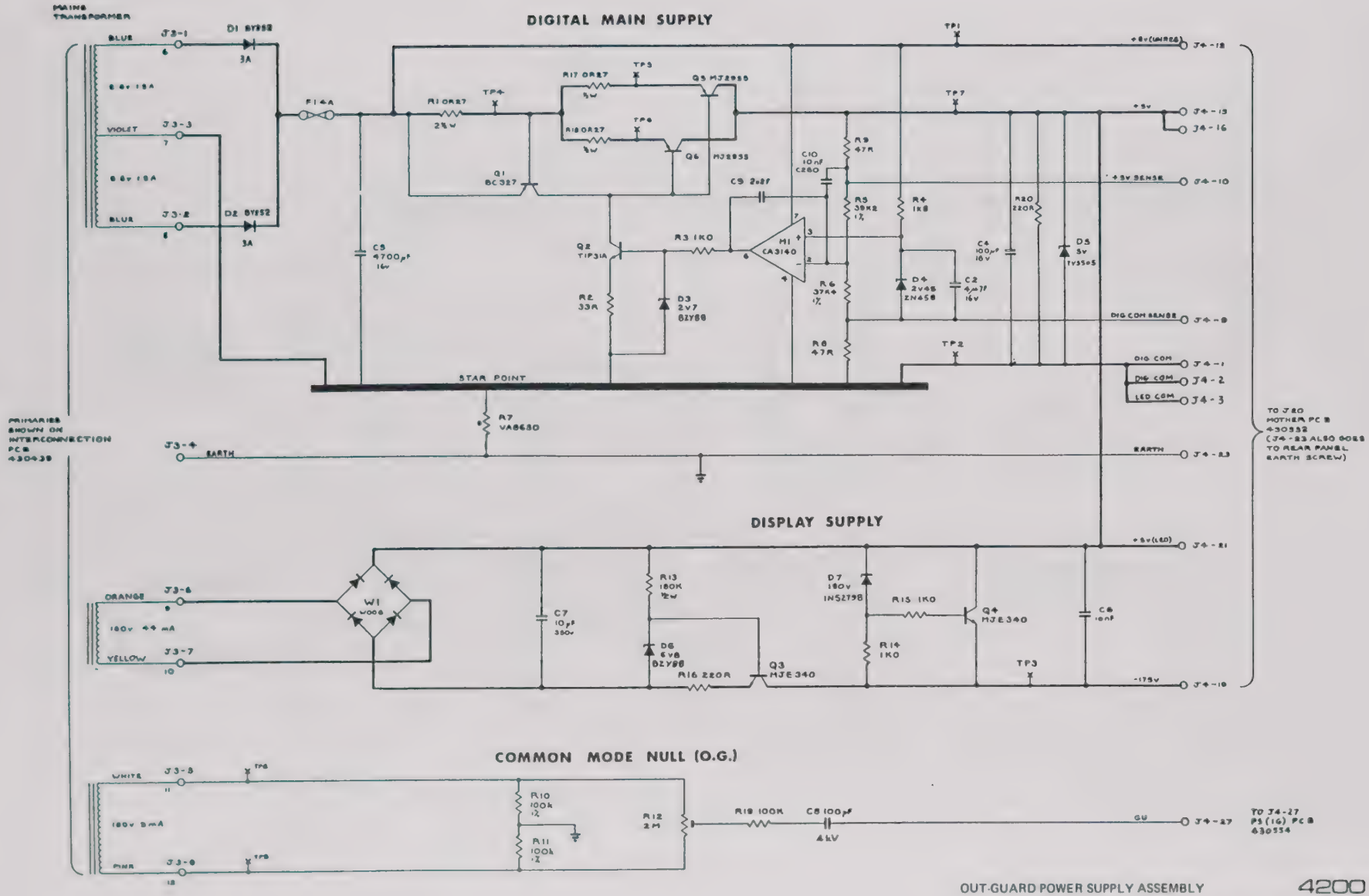

100V OVERLOAD DETECTOR
FROM MT-B SHT 2 100V A
FROM MT-B SHT 2 100V B
+400V(2)B
+400V(2)C
TO J3-5 SHT 3
-400V(2)C
TO J2-5 SHT 3
-400V(2)B
J1 to PSU/1 HEATSINK ASSY 430540.
J1-B +400V(2)B
J1-B -400V(2)B
+15V(2)A
-15V(2)A
+15V(2)D
-15V(2)D
+15V(2)E
TO J9-69 SHT 5
LIM DET
NB : J9 CONNECTIONS TO MOTHER PCB ASSY 430332
+38V(2)
-38V(2)
POWER AMPLIFIER ASSEMBLY
100V Overload Detector and Power Supplies
Circuit Diagram No. 430450-10.0 Sheet 6
© Datron Instruments 1986
4200
datron INSTRUMENTS

 © Datron Instruments 1986

OUT-GUARD POWER SUPPLY ASSEMBLY

datron INSTRUMENTS 4200


BIO C5 & C7 ON PCB WITH SILICONE RUBBER COMPOUND 900004
2 OFF 4 WAY .156" LOCKING RAMP 604042 MOUNT ON UNDER SIDE.
2 OFF TO220 HEATSINK 920144
2 OFF M3 X 10mm POZIPAN SCREW 611004
2 OFF M3 SHAKEPROOF WASHER 613008
2 OFF M3 HEX NUT 618008
2 OFF M3 FLAT STEEL WASHER 613007
USE M3 X 10mm ON Q3 AND Q4 WITH A FLAT AND SHAKEPROOF WASHER UNDER NUT
J3
TP8
TP9
TEST POINT TERMINAL 610007 9 mm
1 OFF 4A FUSE 20mm 980128
1 OFF PCB MT FUSE HOLDER 980126
TP1
TP4
1 OFF M3 X 6mm POZIPAN SCREW 611004
1 OFF M3 SHAKEPROOF WASHER 613008
1 OFF M3 HEX NUT 618008
1 OFF 8 WAY DIL SOCKET 608088/A
MOUNT D4 ON MOUNTING PAD 618004
ENSURE THAT THERE IS A GAP OF AT LEAST 8mm BETWEEN HEATSINKS
FIT Q3 AND Q4 WITH GOLD SIDE TO HEATSINK
MOUNT R7 ON STEATITE BEADS 630024 4 OFF
TP5
TP6
MOUNT C4 AND C8 FLAT TO THE P.C.B AS SHOWN.
TP2
TP7
MOUNT D5 ON CERAMIC BEADS 2 OFF 630024
PCB 410179-6
NOTE USE HEATSINK COMPOUND BETWEEN MATING SURFACES OF Q3,4,5 & 6 AND THE HEATSINKS, THEN USING A TORQUE SCREW DRIVER TIGHTEN TO TORQUE OF 0.8 Nm. (HEATSINK COMPOUND 900003)
6 OFF TO3 HEATSINK 920088
4 OFF M3 X 10mm POZIPAN SCREW 611006
4 OFF M3 SHAKEPROOF WASHER 613008
4 OFF M3 HEX NUT 618008
4 OFF M3 FLAT STEEL WASHER 613007
USE FLAT STEEL WASHERS UNDER SCREW HEADS ON BACK OF PCB.



OUT-GUARD POWER SUPPLY ASSEMBLY

4200

Main Digital Supply, Display Supply and Common Mode Null

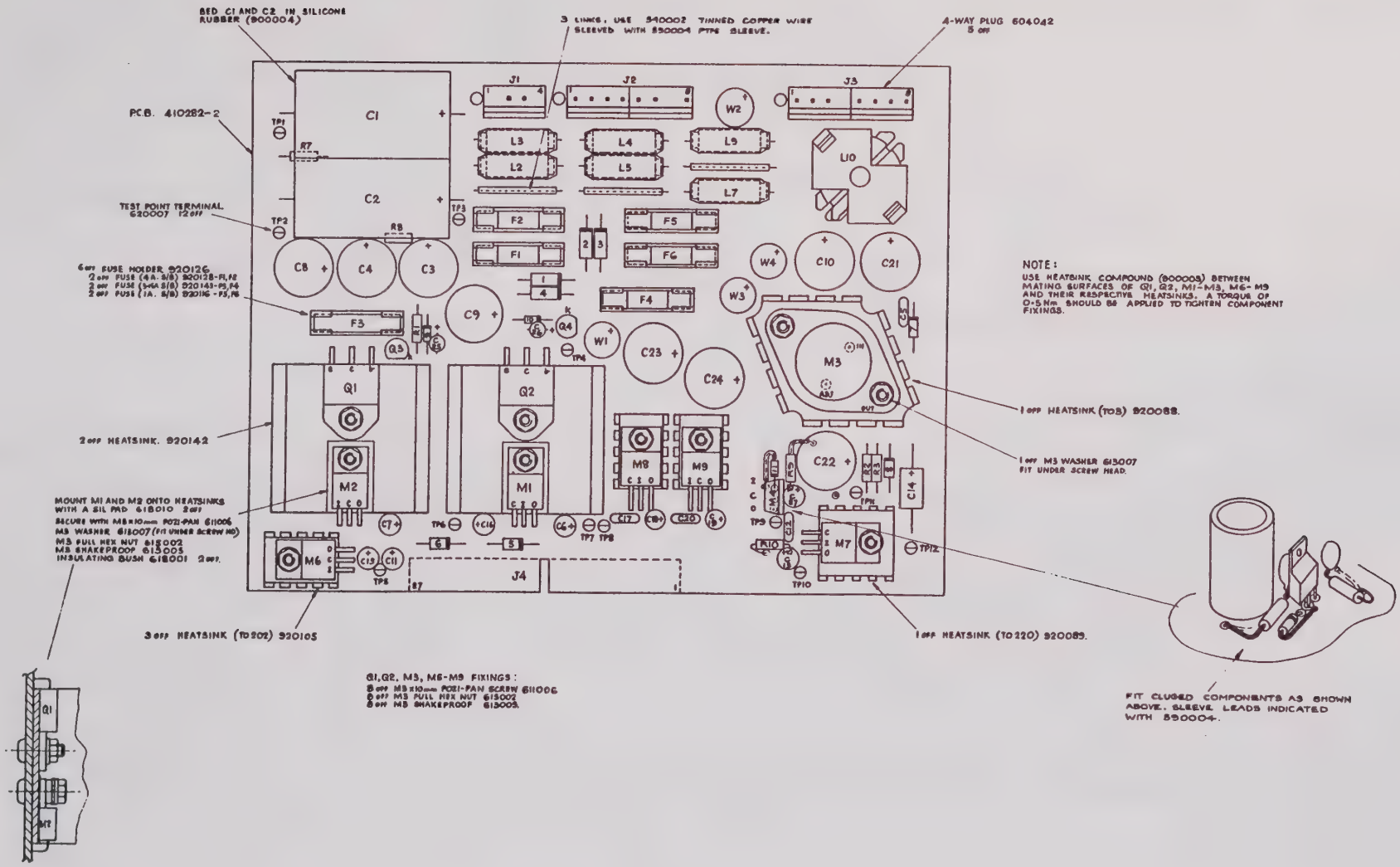
datron INSTRUMENTS

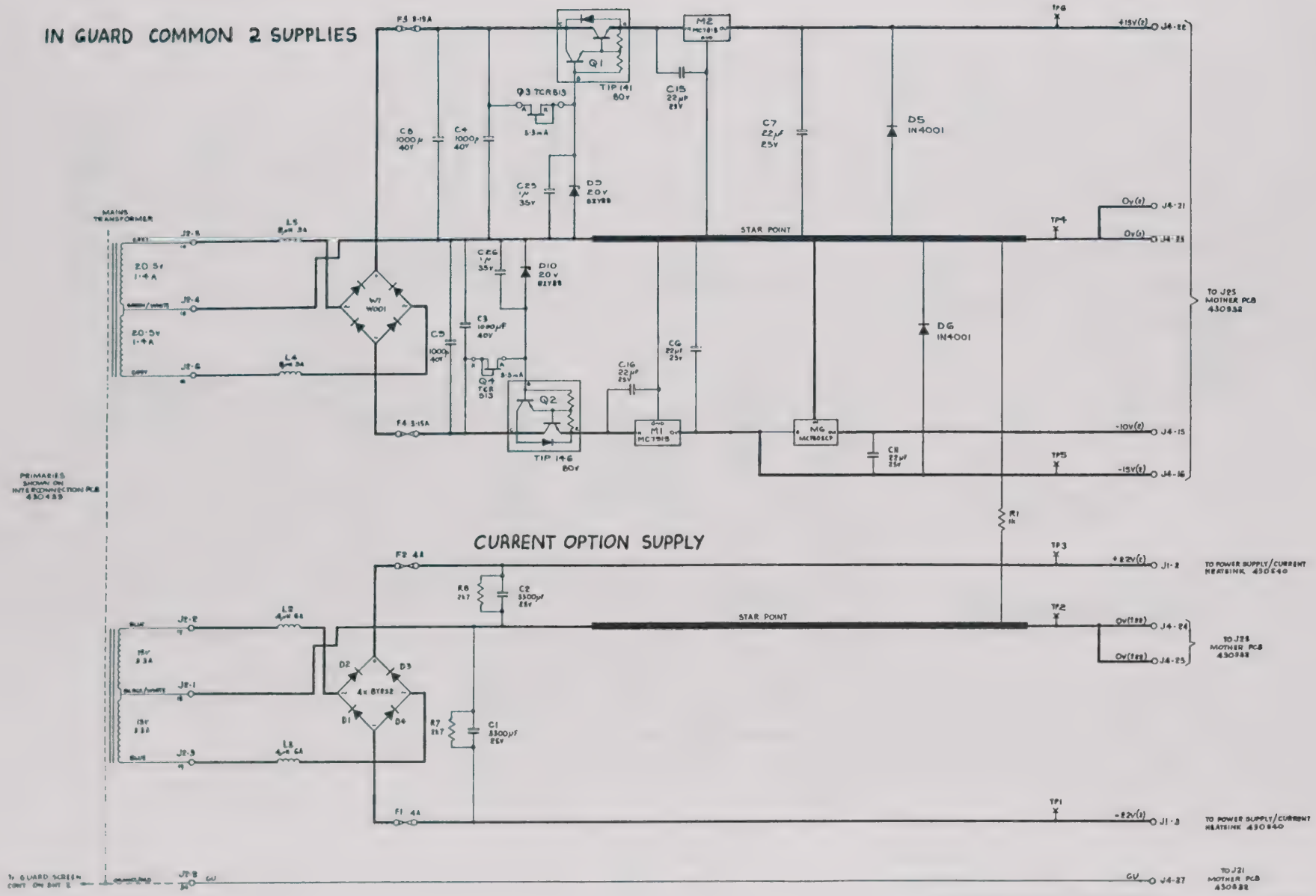
Circuit Diagram No. 430561-2.0 Sheet 1 © Datron Instruments 1986

 © Datron Instruments 1986

IN-GUARD POWER SUPPLY ASSEMBLY

datron INSTRUMENTS 4200


BED C1 AND C2 IN SILICONE RUBBER (900004)
3 LINKS, USE 540002 TINNED COPPER WIRE SLEEVED WITH 550004 PTFE SLEEVE.
4-WAY PLUG 604042 5 off
PCB. 410282-2
TEST POINT TERMINAL 620007 12 off
6 off FUSE HOLDER 920126
2 off FUSE (4A. S/B) 920128-F1,F2
2 off FUSE (3·4A S/B) 920143-F3,F4
2 off FUSE (1A. S/B) 920116-F5,F6
2 off HEATSINK. 920142
MOUNT M1 AND M2 ONTO HEATSINKS WITH A SIL PAD 618010 2 off
SECURE WITH M3 x 10mm POZI-PAN 611006
M3 WASHER 613007 (FIT UNDER SCREW HD)
M3 FULL HEX NUT 615002
M3 SHAKEPROOF 613005
INSULATING BUSH 618001 2 off.
3 off HEATSINK (TO 202) 920105
G1, G2, M3, M6-M9 FIXINGS :
8 off M3 x 10mm POZI-PAN SCREW 611006
8 off M3 FULL HEX NUT 615002
8 off M3 SHAKEPROOF 613005
NOTE :
USE HEATSINK COMPOUND (900003) BETWEEN MATING SURFACES OF Q1, Q2, M1-M3, M6-M9 AND THEIR RESPECTIVE HEATSINKS. A TORQUE OF 0·5 Nm SHOULD BE APPLIED TO TIGHTEN COMPONENT FIXINGS.
1 off HEATSINK (TO3) 920088.
1 off M3 WASHER 613007 FIT UNDER SCREW HEAD.
1 off HEATSINK (TO 220) 920089.
FIT CLOGED COMPONENTS AS SHOWN ABOVE. SLEEVE LEADS INDICATED WITH 550004.



IN-GUARD POWER SUPPLY ASSEMBLY

4200

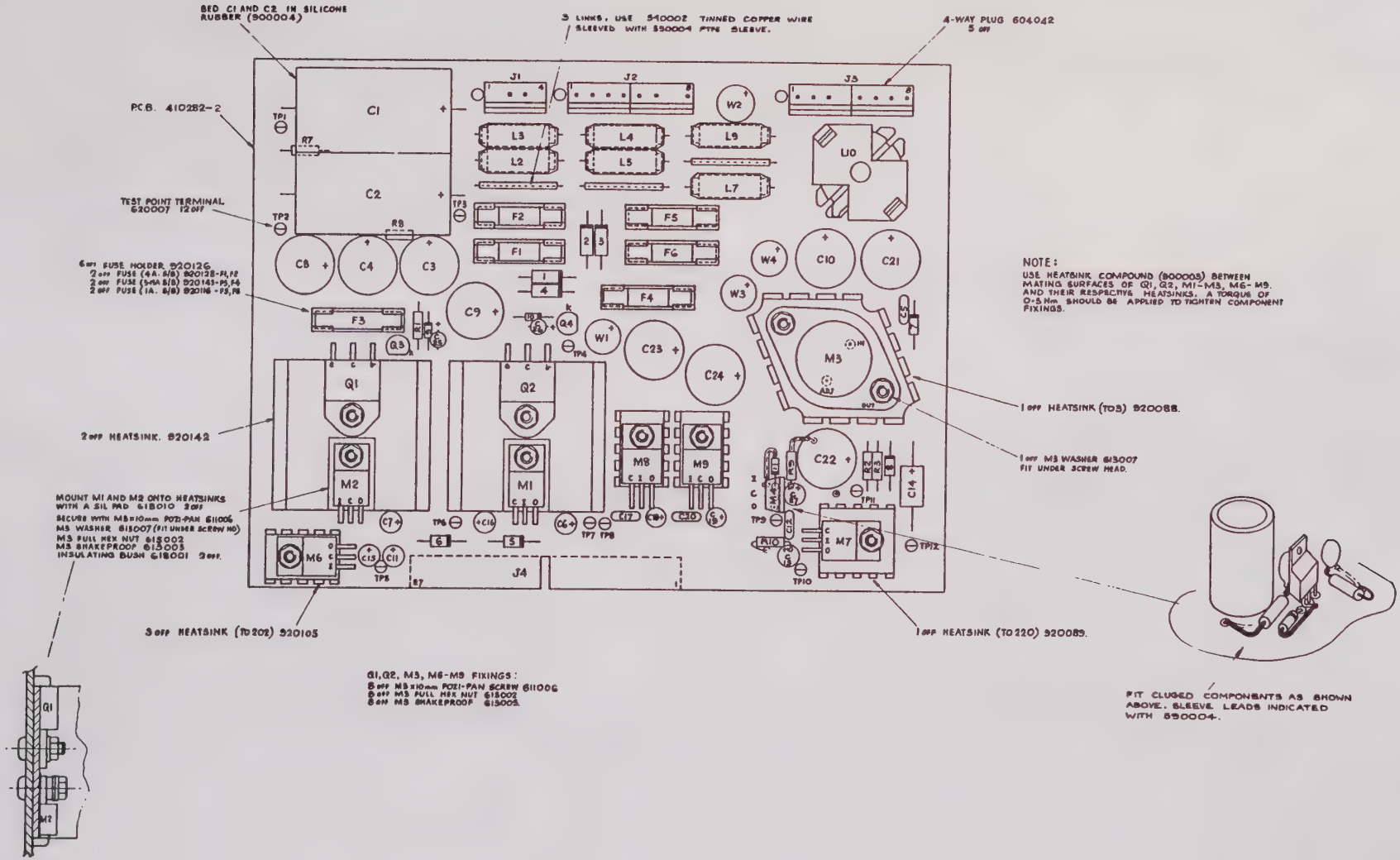
Common-2 Supplies and Current Option Supply

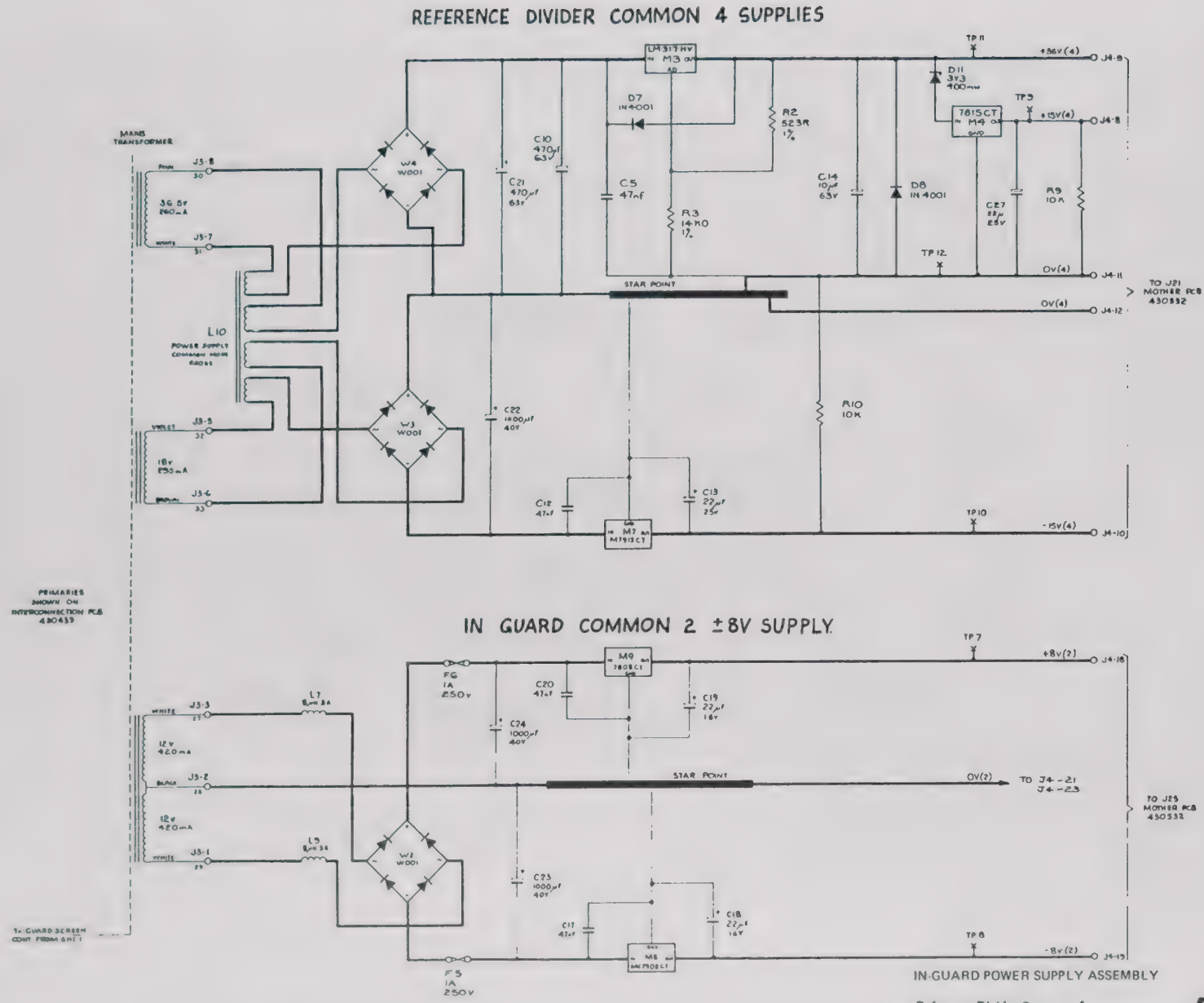
datron INSTRUMENTS

Circuit Diagram No. 430554-4.1 Sheet 1 © Datron Instruments 1986

IN-GUARD POWER SUPPLY ASSEMBLY

datron INSTRUMENTS 4200


BED C1 AND C2 IN SILICONE RUBBER (900004)
3 LINKS, USE 540002 TINNED COPPER WIRE SLEEVED WITH 550004 PTFE SLEEVE.
4-WAY PLUG 604042 5 off
PCB. 410282-2
TEST POINT TERMINAL 620007 12 off
6 off FUSE HOLDER 920126
2 off FUSE (4A. S/B) 920128-F1,F2
2 off FUSE (500mA S/B) 920143-F5,F6
2 off FUSE (1A. S/B) 920116-F3,F4
2 off HEATSINK. 920142
MOUNT M1 AND M2 ONTO HEATSINKS WITH A SIL PAD 618010 2 off
SECURE WITH M3x10mm POZI-PAN 611006
M3 WASHER 613007 (FIT UNDER SCREW HD)
M3 FULL HEX NUT 613002
M3 SHAKEPROOF 613003
INSULATING BUSH 618001 2 off.
3 off HEATSINK (TO202) 920105
Q1,Q2, M3, M6-M9 FIXINGS:
5 off M3x10mm POZI-PAN SCREW 611006
5 off M3 FULL HEX NUT 613002
5 off M3 SHAKEPROOF 613003
NOTE:
USE HEATSINK COMPOUND (900003) BETWEEN MATING SURFACES OF Q1, Q2, M1-M3, M6-M9. AND THEIR RESPECTIVE HEATSINKS. A TORQUE OF 0·5 Nm SHOULD BE APPLIED TO TIGHTEN COMPONENT FIXINGS.
1 off HEATSINK (TO3) 920088.
1 off M3 WASHER 613007 FIT UNDER SCREW HEAD.
1 off HEATSINK (TO220) 920089.
FIT CLUGED COMPONENTS AS SHOWN ABOVE. SLEEVE LEADS INDICATED WITH 550004.



IN-GUARD POWER SUPPLY ASSEMBLY

4200

datron INSTRUMENTS

Reference Divider Common-4 and ± 8V Common-2 Supplies

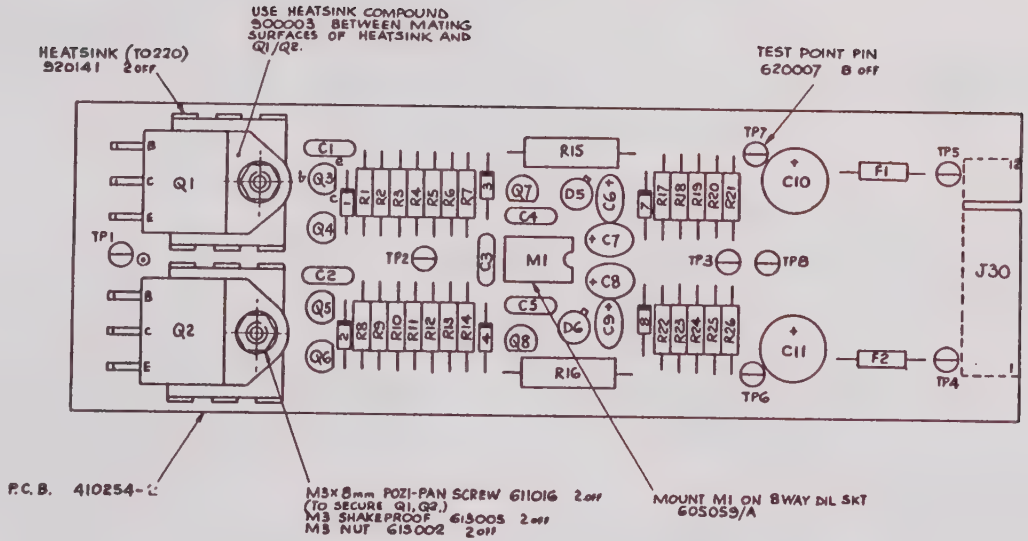
Circuit Diagram No. 430554-4.0 Sheet 2 © Datron Instruments 1986

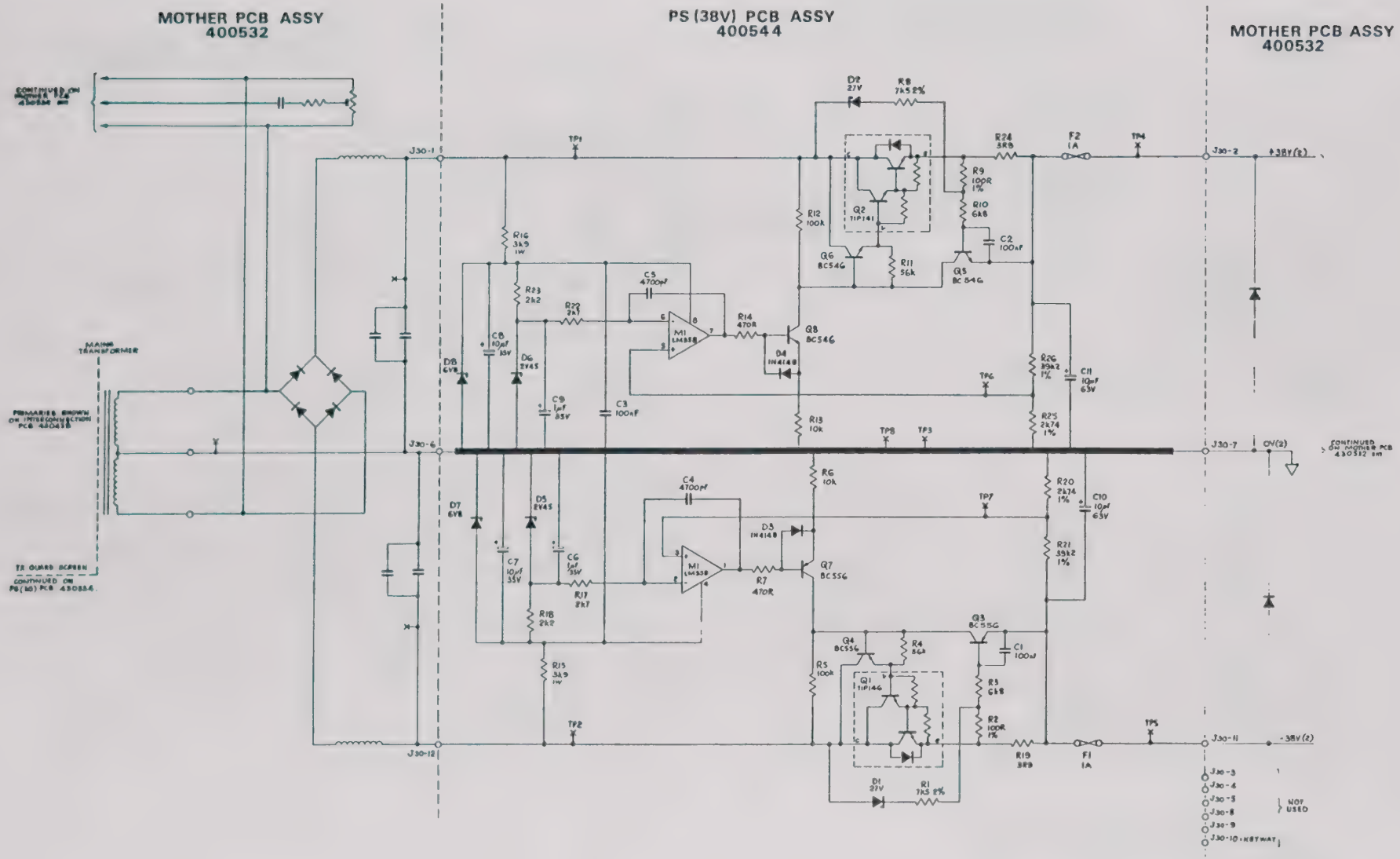
THIRD ANGLE PROJECTION
DRAWN IN ACCORDANCE WITH BS 308

Layout Drawing No. 480544-4.0 Sheet 1 © Datron Instruments 1986

±38V POWER SUPPLY ASSEMBLY

datron INSTRUMENTS 4200





+38V POWER SUPPLY ASSEMBLY

4200

+38V Power Supply with Mother-Assembly Components

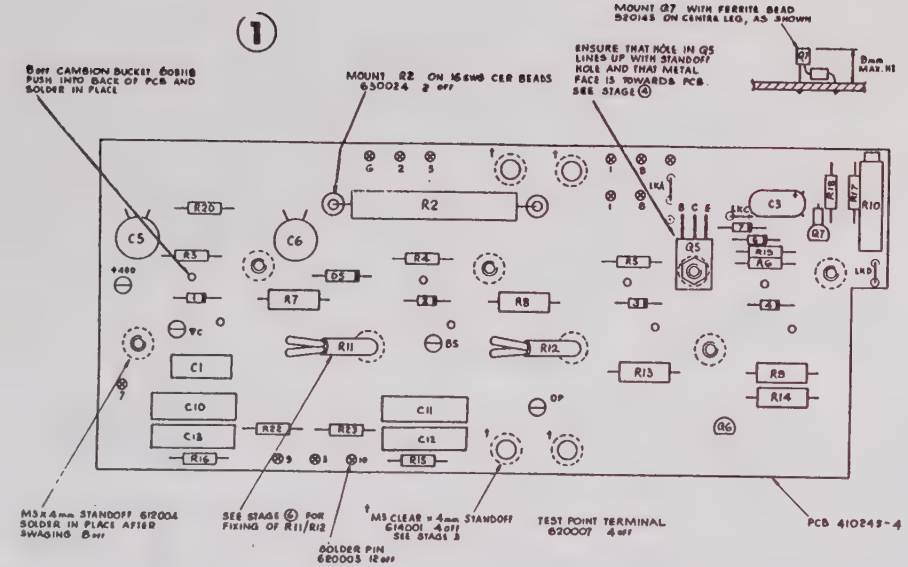
datron INSTRUMENTS

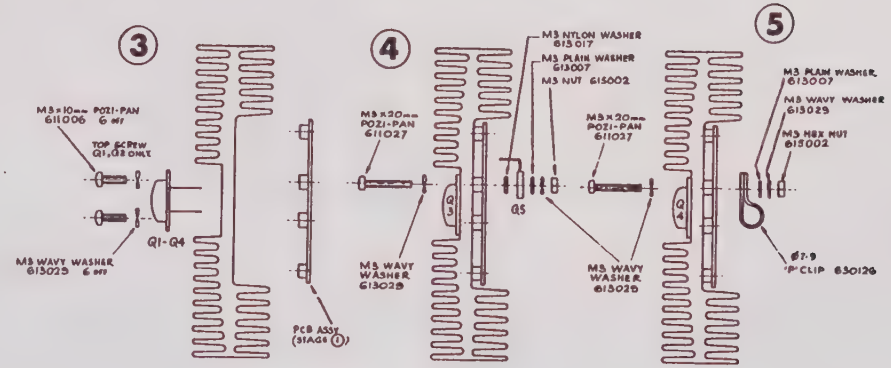
Circuit Diagram No. 430544-4.0 Sheet 1 • © Datron Instruments 1986

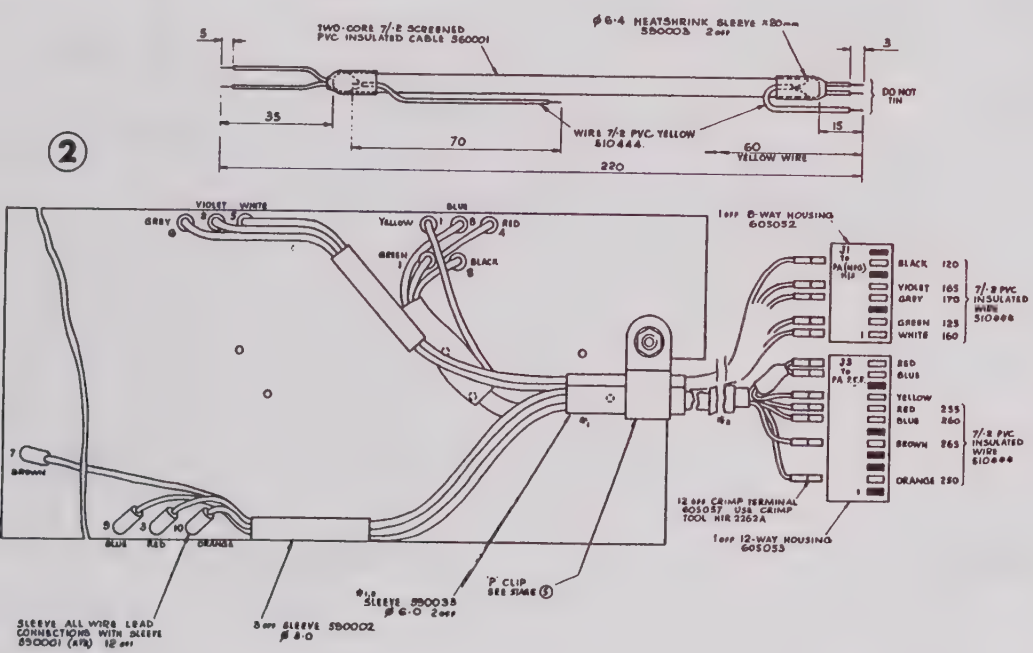
POSITIVE HEATSINK ASSEMBLY

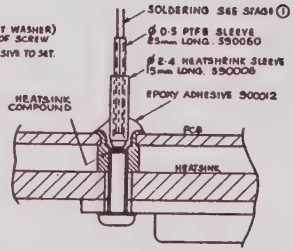
datron INSTRUMENTS 4200

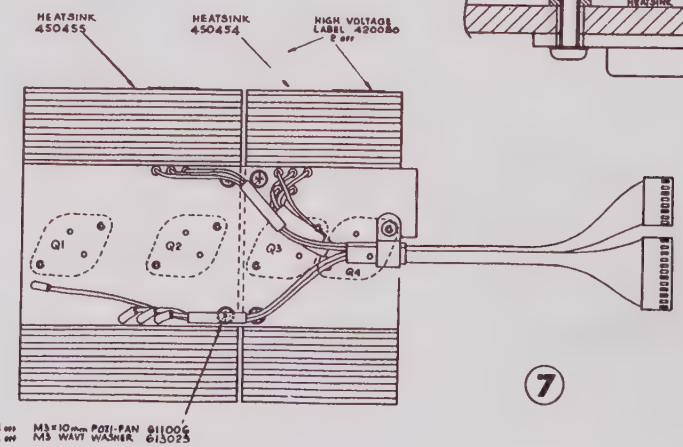
ASSEMBLY NOTES:
1. ASSEMBLY PCB TO STAGE ① EXCEPT SCREW FIXING FOR Q5 (SEE STAGE ④)
2. COMPLETE PCB ASSY BY FITTING WIRING LOOMS. DO NOT FIT 'P' CLIP (SEE STAGE ②)
3. ASSEMBLE PCB ASSY TO HEATSINKS, FITTED BY 4 MIDDLE SCREWS (SEE STAGE ⑦)
4. MOUNT Q1-Q4 TO STAGE ③ ASSEMBLE IN THE POSITION SHOWN (STAGE ⑦); APPLY HEATSINK COMPOUND 900003 BETWEEN MATING SURFACES. USE A TORQUE SCREWDRIVER TO TIGHTEN ALL TRANSISTOR FIXING SCREWS TO A TORQUE OF 0·5Nm
5. SECURE Q5 (STAGE ④). TIGHTEN NUT TO A TORQUE OF 0·5Nm
6. SECURE WIRING WITH 'P' CLIP (STAGE ③)


①
8 off CAMBION BUCKET 608118 PUSH INTO BACK OF PCB AND SOLDER IN PLACE
MOUNT R2 ON 16SWG CER BEADS 630024 2 off
MOUNT Q7 WITH FERRITE BEAD 920143 ON CENTRE LEG, AS SHOWN
ENSURE THAT HOLE IN Q5 LINES UP WITH STANDOFF HOLE AND THAT METAL FACE IS TOWARDS PCB. SEE STAGE ④
8mm MAX. HT
M3 x 4mm STANDOFF 612004 SOLDER IN PLACE AFTER SWAGING 8 off
SEE STAGE ⑥ FOR FIXING OF R11/R12
M3 CLEAR x 4mm STANDOFF 614001 4 off SEE STAGE 3
SOLDER PIN 620003 12 off
TEST POINT TERMINAL 620007 4 off
PCB 410243-4



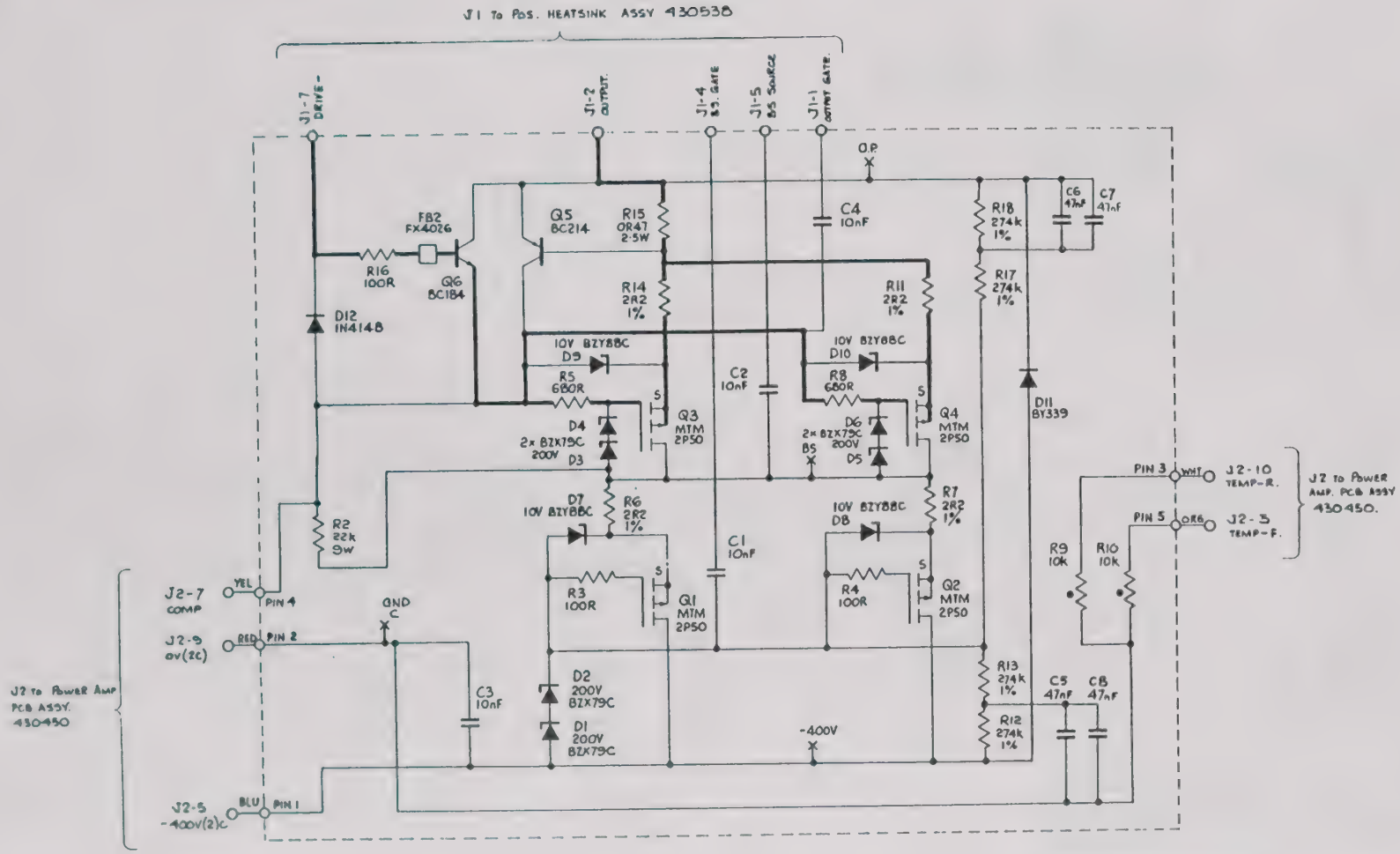

②
TWO-CORE 7/·2 SCREENED PVC INSULATED CABLE 360001
ø6·4 HEATSHRINK SLEEVE x80mm 580003 2 off
DO NOT TIN
WIRE 7/·2 PVC YELLOW 510444
35
70
60 YELLOW WIRE
15
220
1 off 6-WAY HOUSING 605052
1 off 12-WAY HOUSING 605053
12 off CRIMP TERMINAL 605057 USE CRIMP TOOL HIR 2362A
7/·2 PVC INSULATED WIRE 510008
7/·2 PVC INSULATED WIRE 510004
'P' CLIP SEE STAGE ③
SLEEVE 580038 ø6·0 2 off
8 off SLEEVE 580002 ø8·0
SLEEVE ALL WIRE LEAD CONNECTIONS WITH SLEEVE 580001 (AR) 12 off


⑥
1. FIT M3 x 10mm SCREW (WITHOUT WAVY WASHER) WITH HEATSINK COMPOUND ON END OF SCREW
2. MOUNT THERMISTOR 1 WAIT FOR ADHESIVE TO SET.
3. REMOVE M3 SCREW & RE-FIT WITH WAVY WASHER
SOLDERING SEE STAGE ①
ø0·5 PTFE SLEEVE 23mm LONG. 590060
ø2·4 HEATSHRINK SLEEVE 15mm LONG. 590006
EPOXY ADHESIVE 900012
HEATSINK COMPOUND
PCB
HEATSINK



THIRD ANGLE PROJECTION

DRAWN IN ACCORDANCE WITH BS 308



POSITIVE HEATSINK ASSEMBLY

4200

Output Power Amplifier
(Positive Half)

datron INSTRUMENTS

Circuit Diagram No. 430538-9.1 Sheet 1 © Datron Instruments 1986

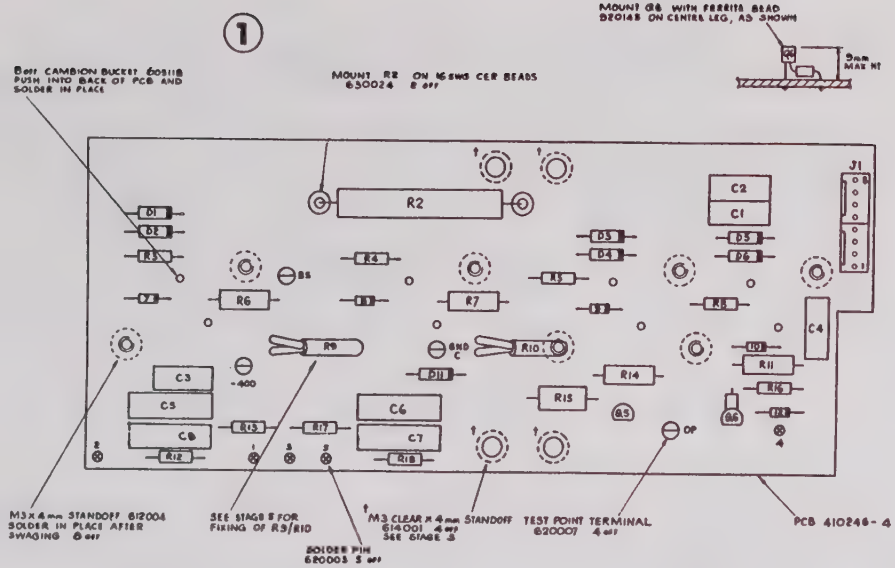
 © Datron Instruments 1986

NEGATIVE HEATSINK ASSEMBLY

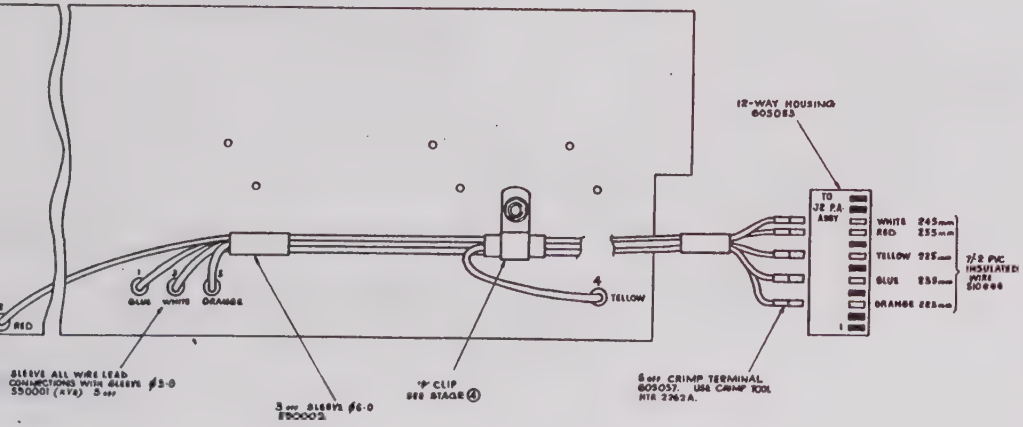
datron INSTRUMENTS 4200

ASSEMBLY NOTES:
1. ASSEMBLE PCB TO STAGE ①
2. COMPLETE PCB ASSY BY FITTING WIRING LOOM. DO NOT FIT 'P' CLIP (SEE STAGE ②)
3. ASSEMBLE PCB ASSY TO HEATSINKS, FITTED BY 4 MIDDLE SCREWS (SEE STAGE ⑥)
4. MOUNT Q1-Q4 TO STAGE ③ ASSEMBLE IN THE POSITION SHOWN (STAGE ⑥); APPLY HEATSINK COMPOUND 800003 BETWEEN MATING SURFACES. USE A TORQUE SCREWDRIVER TO TIGHTEN ALL TRANSISTOR FIXING SCREWS TO A TORQUE OF 0·5 Nm.
5. SECURE WIRING WITH 'P' CLIP (STAGE ④)

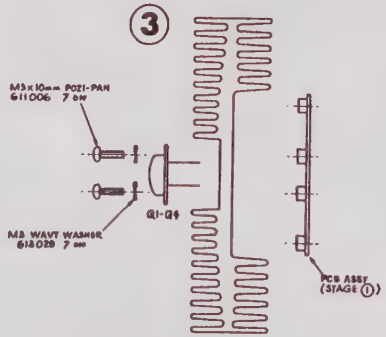
①



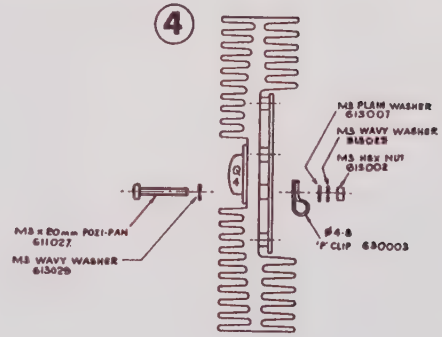
②



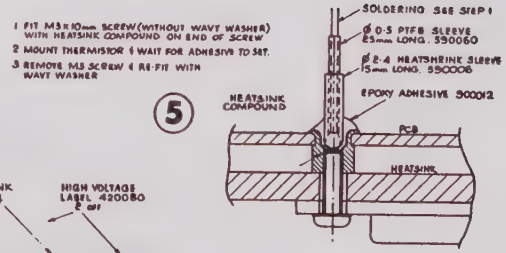
③



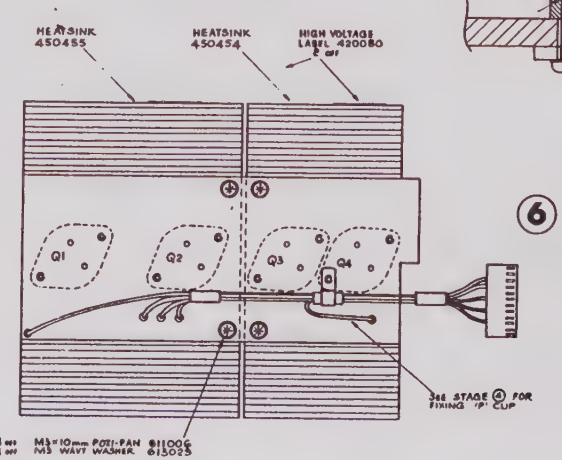
④

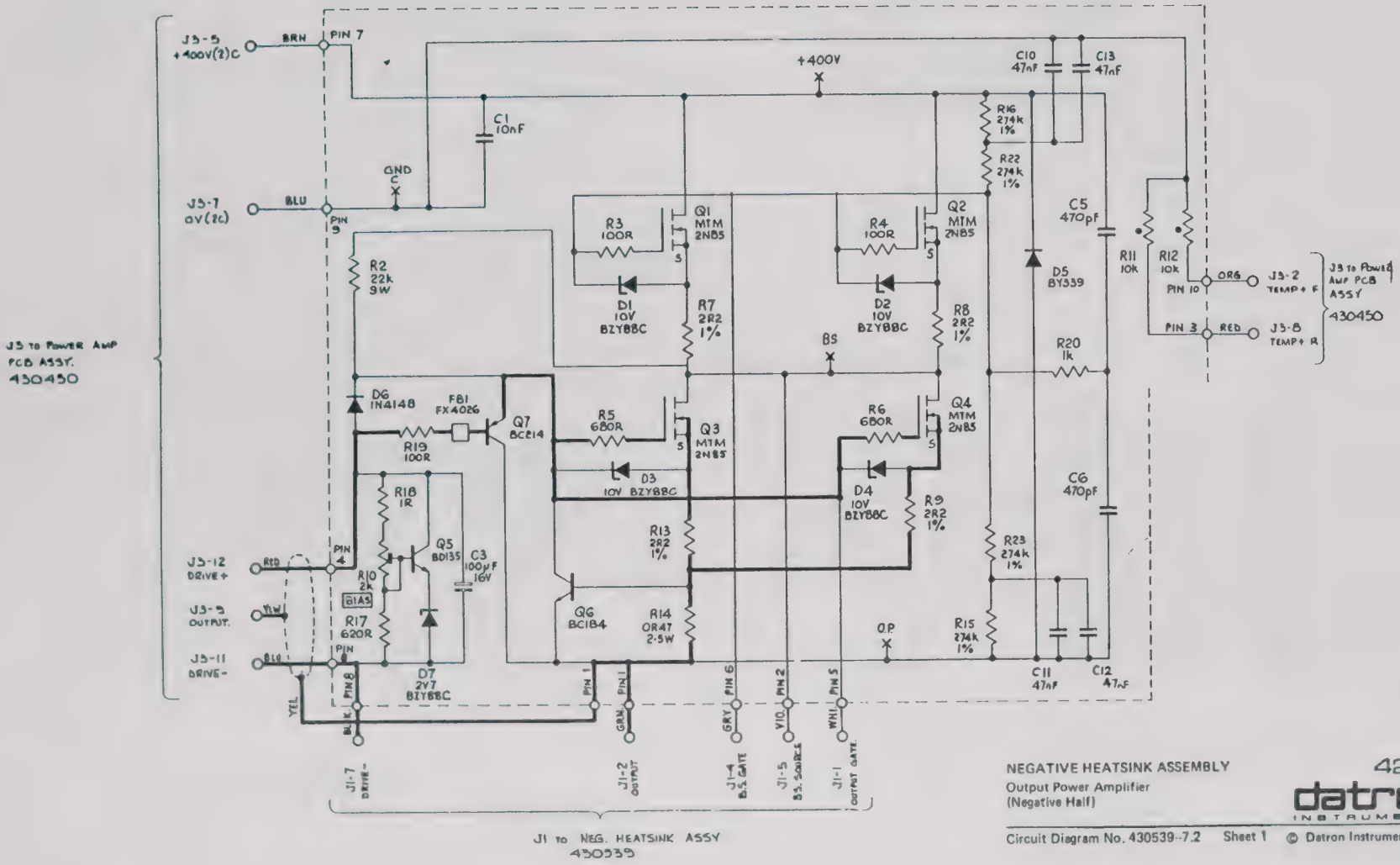


⑤


1 FIT M3x10mm SCREW (WITHOUT WAVY WASHER) WITH HEATSINK COMPOUND ON END OF SCREW
2 MOUNT THERMISTOR & WAIT FOR ADHESIVE TO SET.
3 REMOVE M3 SCREW & RE-FIT WITH WAVY WASHER
SOLDERING SEE STEP 1
ϕ0·5 PTFE SLEEVE 25mm LONG. 550060
ϕ2·4 HEATSHRINK SLEEVE 15mm LONG. 550006
EPOXY ADHESIVE 300012
HEATSINK COMPOUND
PCB
HEATSINK

⑥





NEGATIVE HEATSINK ASSEMBLY

Output Power Amplifier
(Negative Half)

4200

datron INSTRUMENTS

Circuit Diagram No. 430539-7.2 Sheet 1

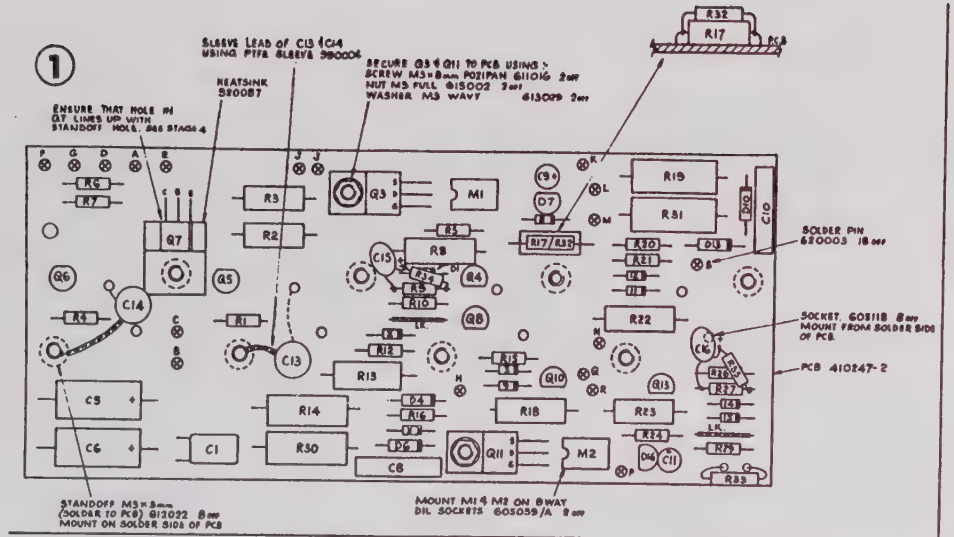
© Datron Instruments 1986

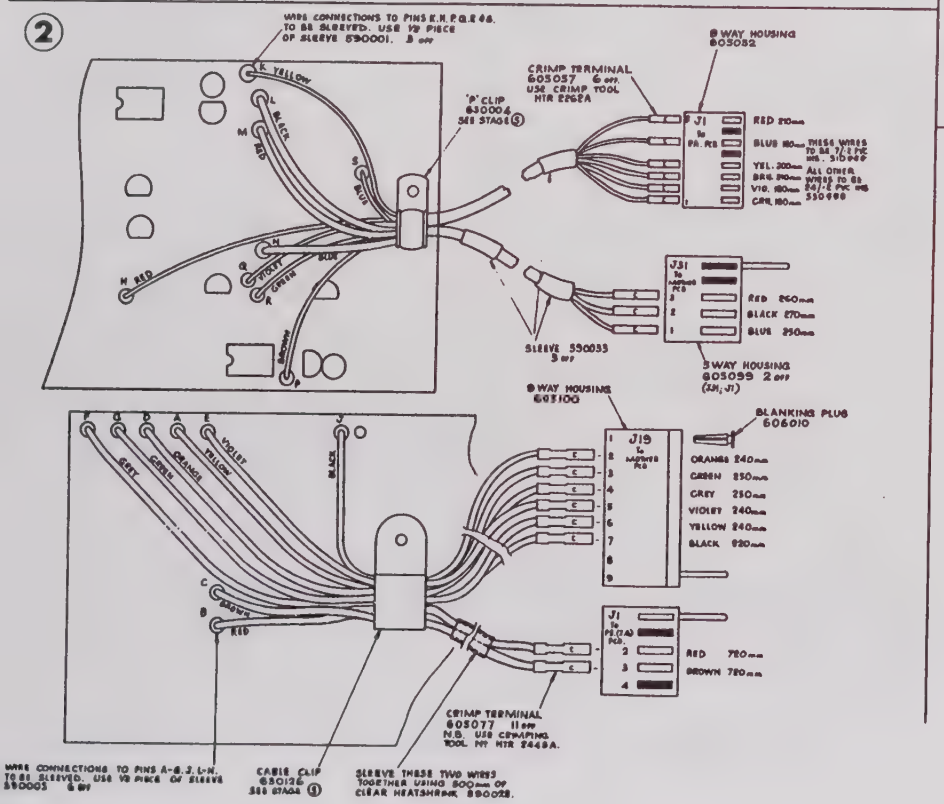
 © Datron Instruments 1986

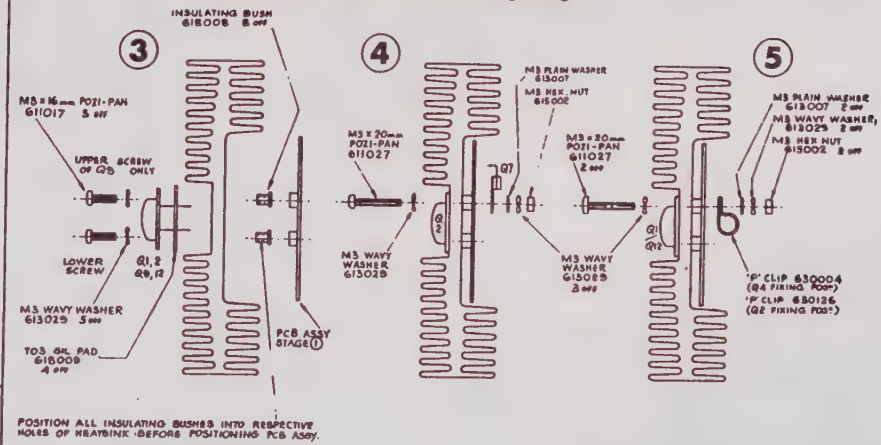
datron INSTRUMENTS 4200

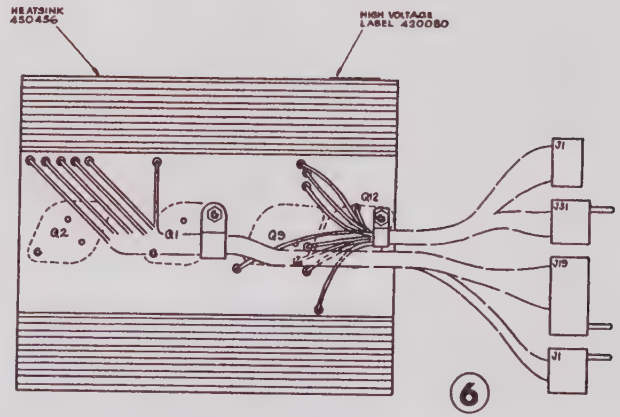
PS/I HEATSINK ASSEMBLY

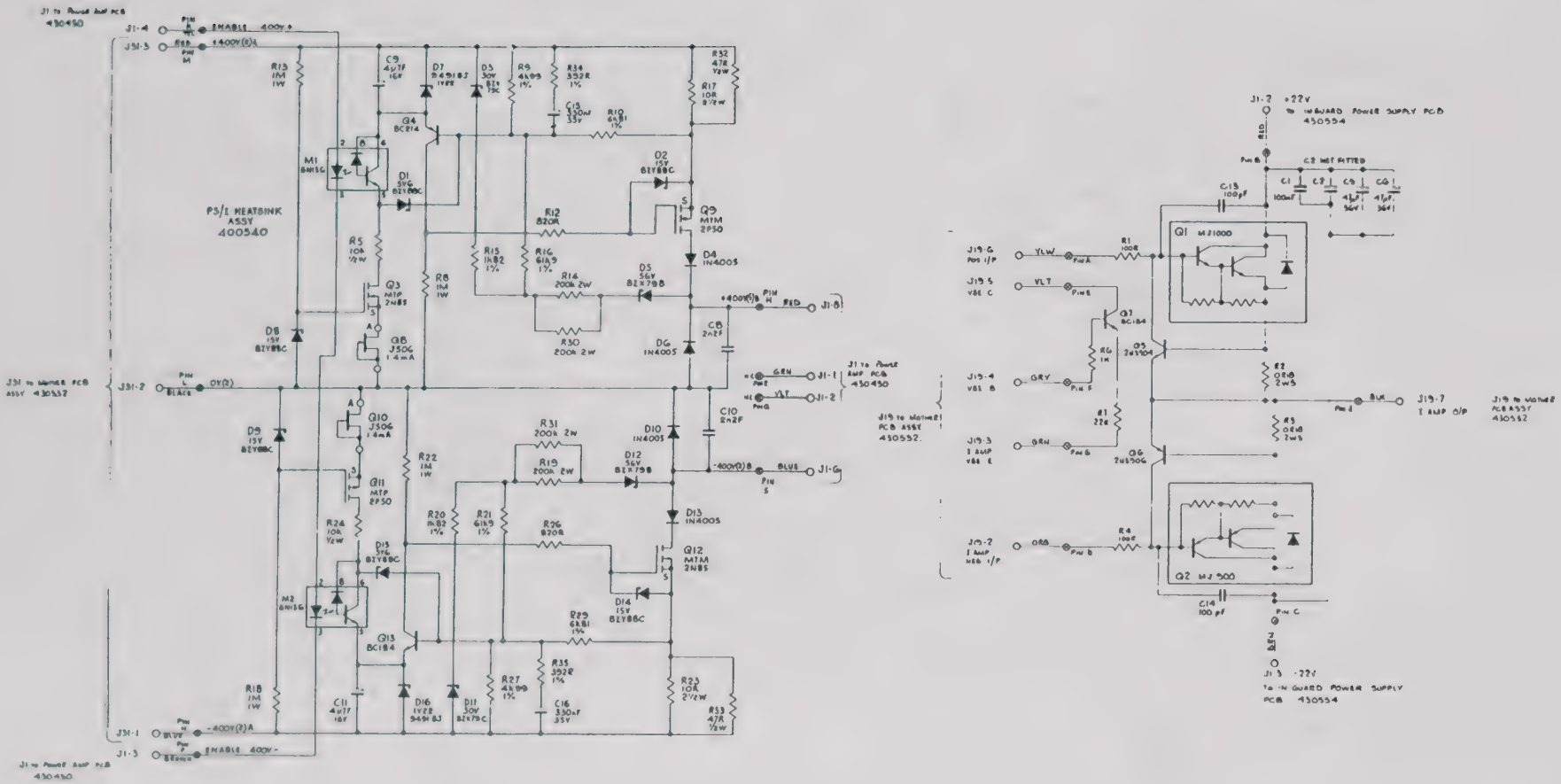
ASSEMBLY NOTES :
1. ASSEMBLE PCB TO STAGE ① EXCEPT SCREW FOR SECURING Q7 (SEE STAGE ④)
2. COMPLETE PCB ASSY BY FITTING WIRING LOOMS. DO NOT FIT 'P' CLIPS (SEE STAGE ⑤)
3. ASSEMBLE PCB ASSY TO HEATSINK BY FITTING Q1,2,9 & 12 (SEE STAGE ③). ASSEMBLE IN THE POSITIONS SHOWN AT STAGE ⑤. APPLY HEATSINK COMPOUND 800003 BETWEEN MATING SURFACES. USE A TORQUE SCREWDRIVER TO TIGHTEN ALL TRANSISTOR FIXING SCREWS TO A TORQUE OF 0·5 Nm
4. SECURE Q7 (STAGE ④). TIGHTEN NUT TO A TORQUE OF 0·4 Nm
5. SECURE WIRING WITH 'P' CLIPS (SEE STAGES ② AND ⑤)


①
SLEEVE LEAD OF C13 & C14 USING PTFE SLEEVE 390004
HEATSINK 520087
SECURE Q3 & Q11 TO PCB USING : SCREW M3 × 8mm POZIPAN 611016 2 off
NUT M3 FULL 615002 2 off
WASHER M3 WAVY 613029 2 off
ENSURE THAT HOLE IN QT LINES UP WITH STANDOFF HOLE. SEE STAGE 4
R32
R17
PCB
SOLDER PIN 670003 18 off
SOCKET 605118 8 off MOUNT FROM SOLDER SIDE OF PCB.
PCB 410247-2
STANDOFF M3 × 8mm (SOLDER TO PCB) 612022 8 off MOUNT ON SOLDER SIDE OF PCB
MOUNT M1 & M2 ON 8 WAY DIL SOCKETS 605059/A 2 off


②
WIRE CONNECTIONS TO PINS K, N, P & R TO BE SLEEVED. USE 19 PIECE OF SLEEVE 390001. 5 cm
'P' CLIP 630004 SEE STAGE ⑤
CRIMP TERMINAL 605057 6 off. USE CRIMP TOOL HTR 22628A
8 WAY HOUSING 605052
J1 to PA.PCB
RED 210mm
BLUE 180mm THESE WIRES TO BE 7/0.2 PVC INS. 510049
YEL. 200mm
BRG. 190mm
VIO. 180mm
GRN. 180mm
ALL OTHER WIRES TO BE 24/0.2 PVC INS 550988
J31 to MOTHER PCB
RED 260mm
BLACK 270mm
BLUE 250mm
SLEEVE 530033 3 cm
8 WAY HOUSING 605059 2 off (J31, J1)
8 WAY HOUSING 605100
BLANKING PLUG 606010
J19 to MOTHER PCB
ORANGE 240mm
GREEN 250mm
GREY 250mm
VIOLET 240mm
YELLOW 240mm
BLACK 220mm
J1 to PS (I/A) PCB
RED 720mm
BROWN 720mm
CRIMP TERMINAL 605077 11 off N.B. USE CRIMPING TOOL HT HTR 22628A.
WIRE CONNECTIONS TO PINS A-G, J, L-N, TO BE SLEEVED. USE 98 PIECE OF SLEEVE 390003 8 cm
CABLE CLIP 630126 SEE STAGE ①
SLEEVE THESE TWO WIRES TOGETHER USING 800mm OF CLEAR HEATSHRINK 880028.


③
INSULATING BUSH 618008 8 off
M3 × 16mm POZI-PAN 611017 3 off
UPPER SCREW OF Q5 ONLY
LOWER SCREW
Q1, 2 Q9, 12
M3 WAVY WASHER 613029 5 off
TO3 INS. PAD 618008 4 off
PCB ASSY STAGE ①
④
M3 × 20mm POZI-PAN 611027
M3 WAVY WASHER 613029
M3 PLAIN WASHER 613007
M3 HEX. NUT 615002
M3 × 20mm POZI-PAN 611027 2 off
M3 WAVY WASHER 613029 3 off
Q7
⑤
M3 PLAIN WASHER 613007 2 off
M3 WAVY WASHER 613029 2 off
M3 HEX NUT 615002 8 off
'P' CLIP 630004 (Q4 FIXING POST)
'P' CLIP 630126 (Q2 FIXING POST)
POSITION ALL INSULATING BUSHES INTO RESPECTIVE HOLES OF HEATSINK BEFORE POSITIONING PCB Assy.





PS/I HEATSINK ASSEMBLY

4200

datron INSTRUMENTS

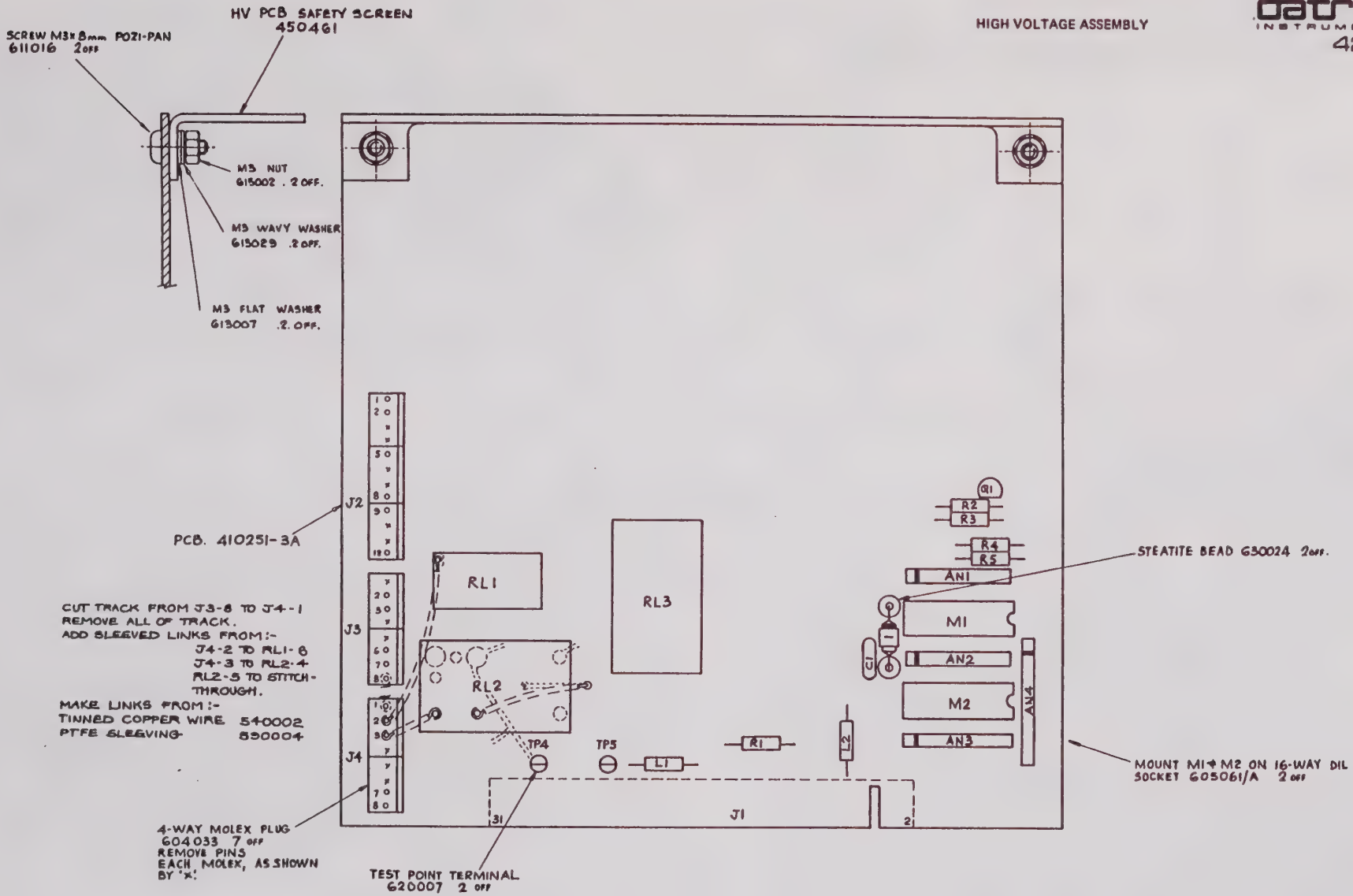
±400V(2)B Regulator
Current Option Output Stage

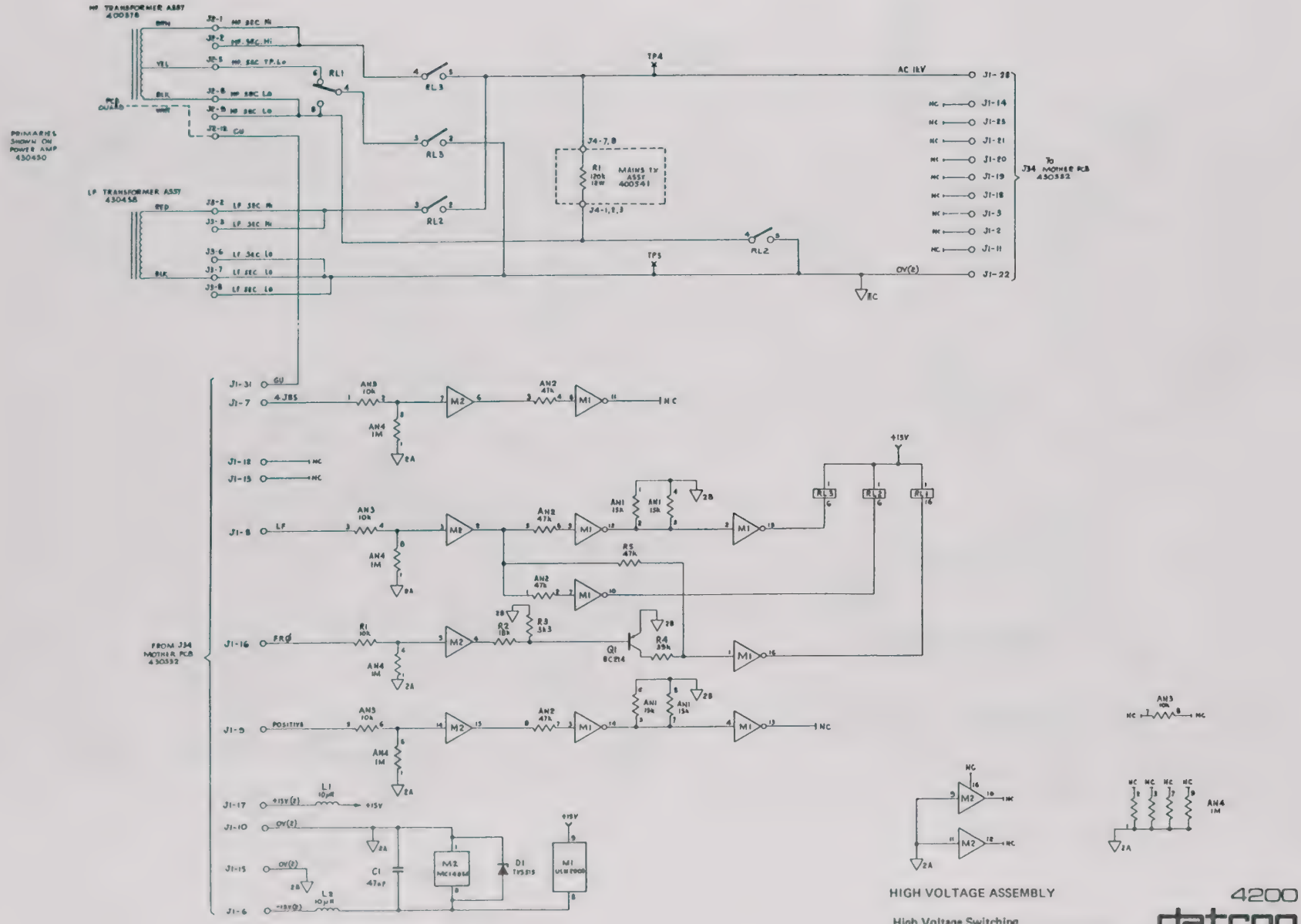
Circuit Diagram No. 430540-6.0 Sheet 1 © Datron Instruments 1986

 © Datron Instruments 1986

HIGH VOLTAGE ASSEMBLY

datron INSTRUMENTS 4200





HIGH VOLTAGE ASSEMBLY

4200

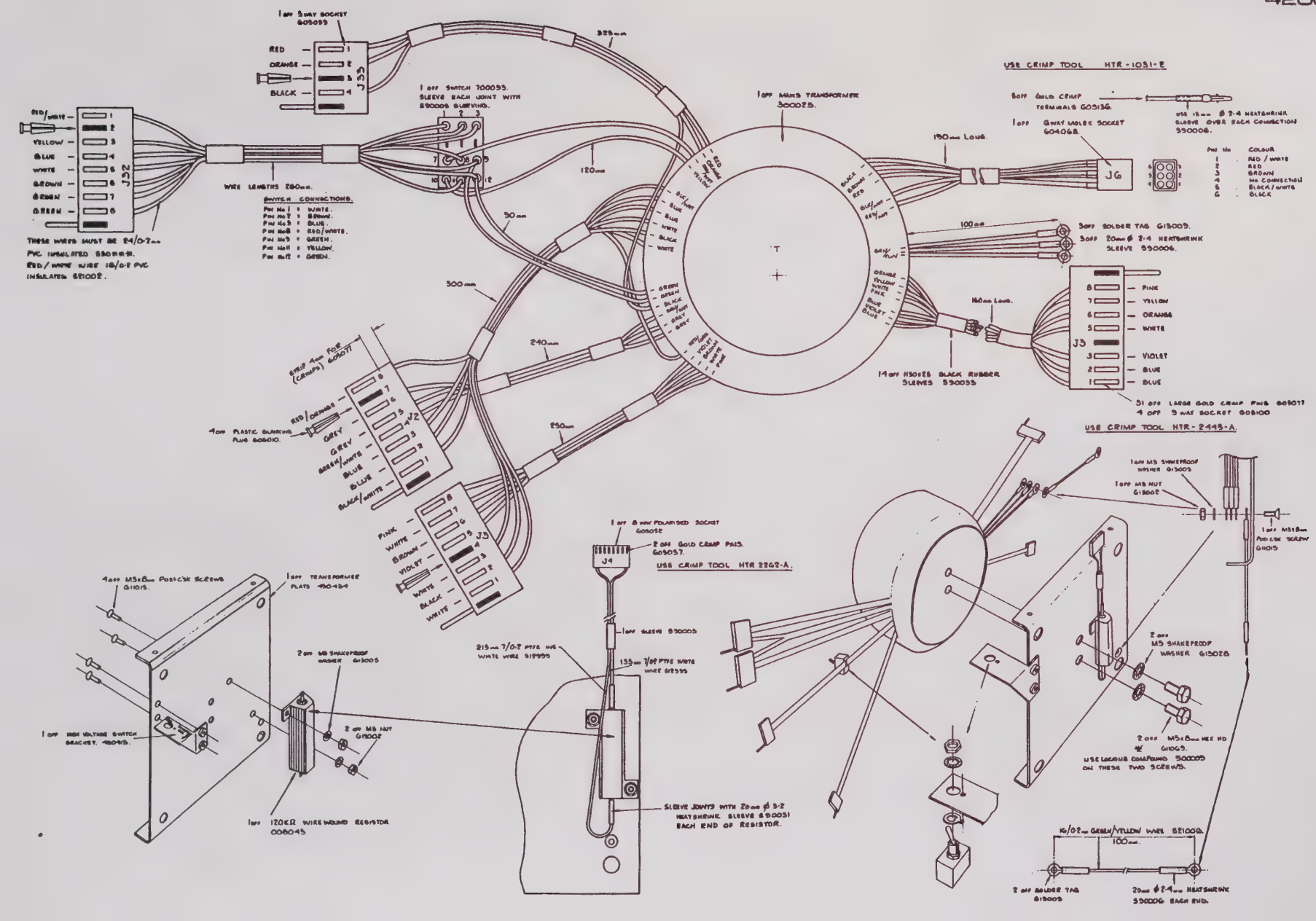
High Voltage Switching and Logic

datron INSTRUMENTS

Circuit Diagram No. 430565-4.0 Sheet 1 © Datron Instruments 1986

MAINS (LINE) TRANSFORMER

datron INSTRUMENTS 4200



For mains (line) transformer circuits refer to the following pages:

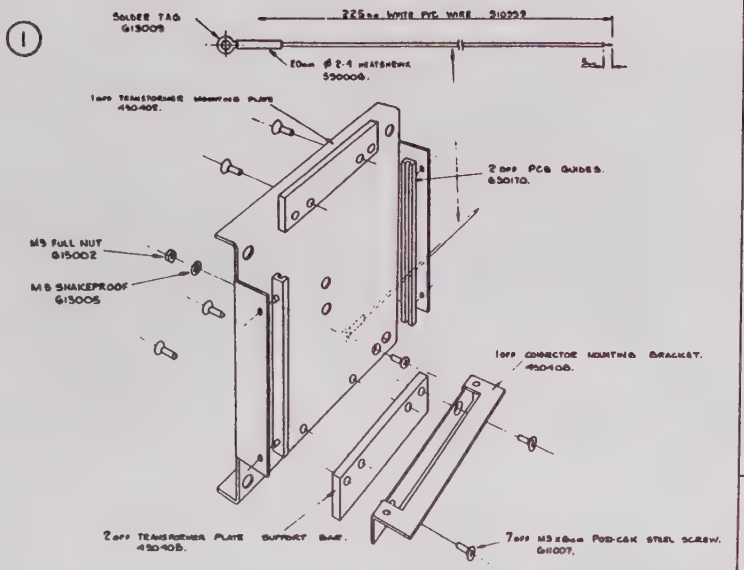
7.10–1	Main Digital Supply, Display Supply and Common Mode Null
7.11–1	Common-2 Supplies and Current Option Supply
7.11–2	Reference Divider Common-4 and ± 8V Common-2 Supplies
7.16–5	400V Power Supply, 38V Power Supply and Common Mode Null
7.17–2	Interconnections, Power Input Module and Mains Transformer Primary

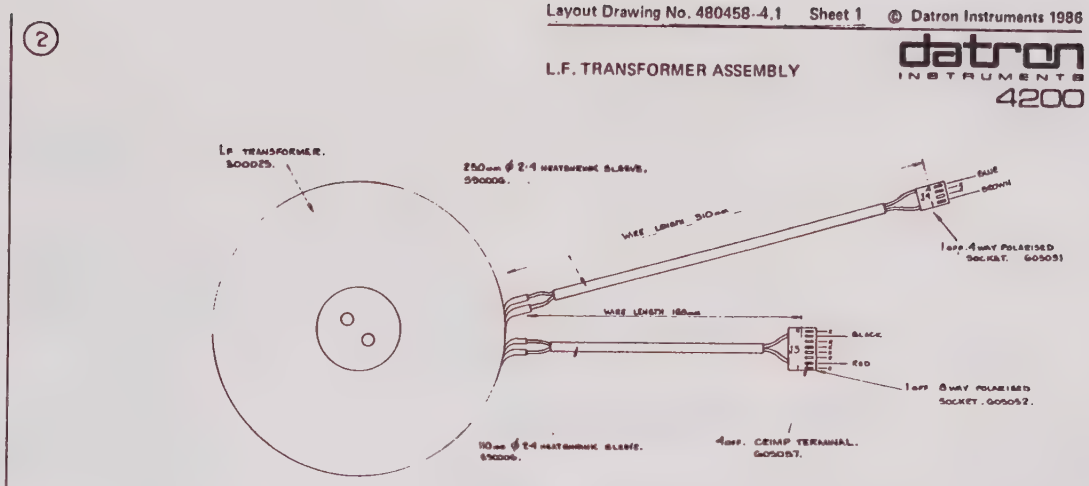
© Datron Instruments 1986

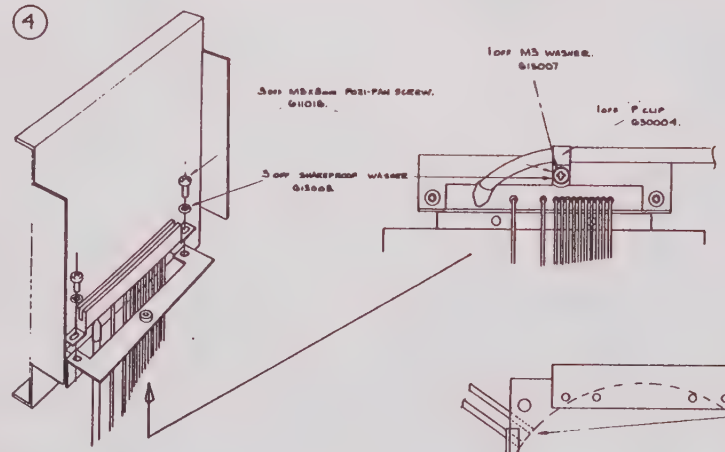
 © Datron Instruments 1986

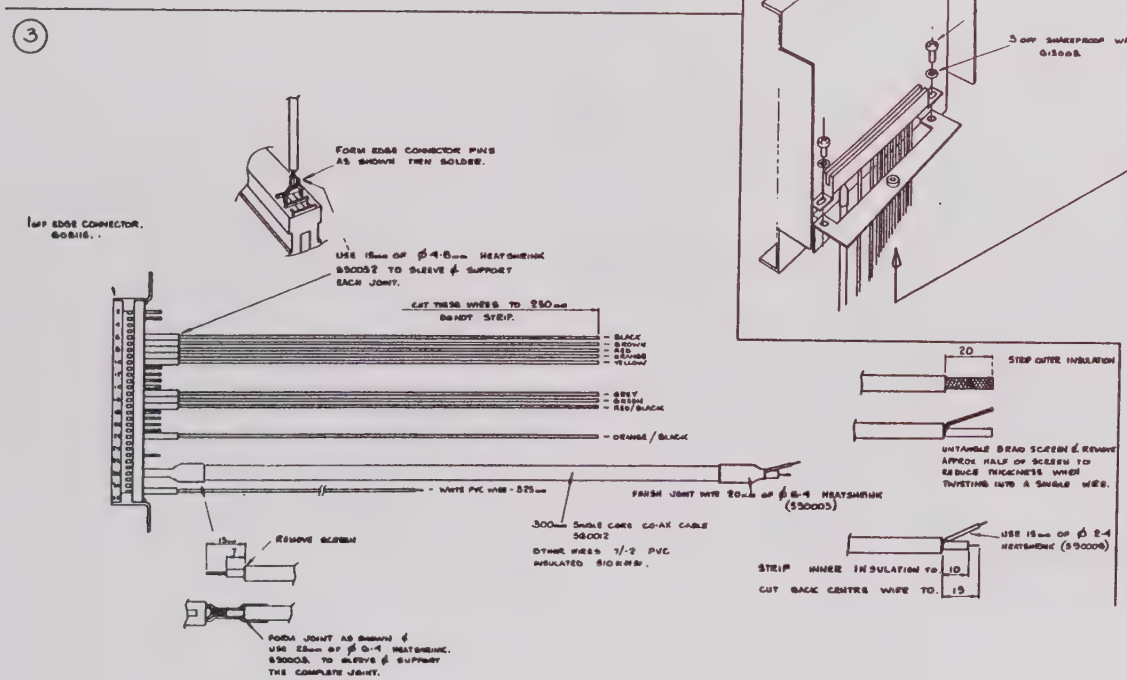
L.F. TRANSFORMER ASSEMBLY

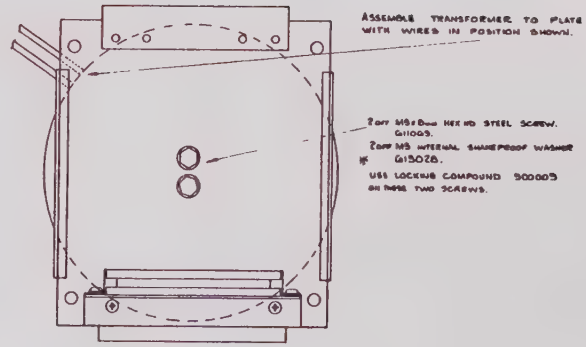
datron INSTRUMENTS 4200

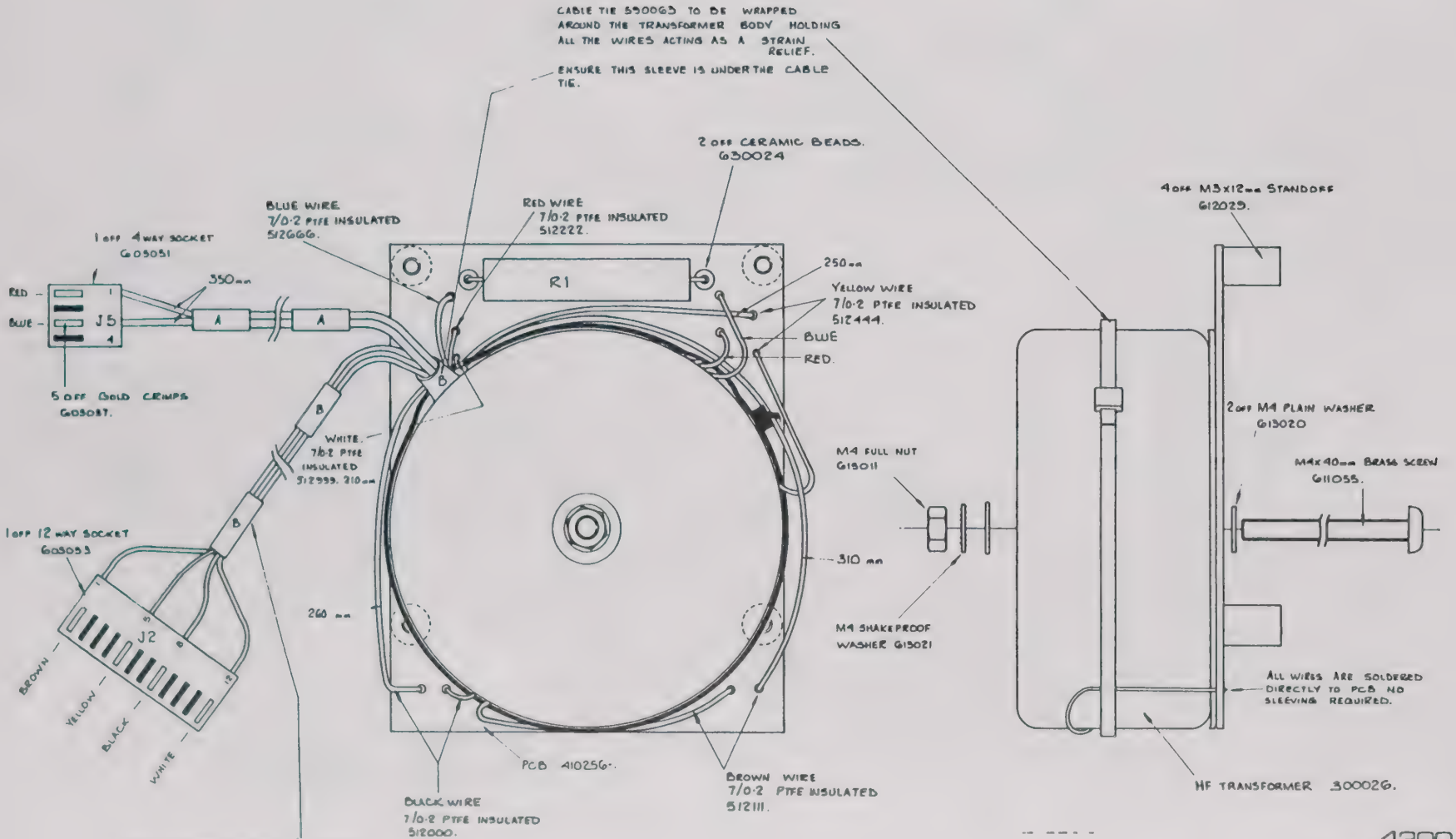

1
Solder tag 613009
225mm white PVC wire 310339
10mm ø2·4 heatshrink 590006.
1off transformer mounting plate 480409.
2off PCB guides. 630170.
M3 full nut 615002
M3 shakeproof 615005
1off connector mounting bracket. 480408.
2off transformer plate support bar. 480405.
7off M3x8mm pozi-cak steel screw. 611007.






3
Form edge connector pins as shown then solder.
1off edge connector. 608116.
Use 15mm of ø4·8mm heatshrink 590052 to sleeve ø support each joint.
Cut these wires to 250mm
Do not strip.
Black
Brown
Red
Yellow
Grey
Green/black
Red/black
Orange/black
White PVC wire - 325mm
Finish joint with 20mm of ø6·4 heatshrink (590005)
300mm single core co-ax cable 580012
Other wires 7/2 PVC insulated 608088.
Remove screen
Form joint as shown & use 25mm of ø9·4 heatshrink. 590003. to sleeve ø support the complete joint.
20
Strip outer insulation
Untangle braid screen & remove approx half of screen to reduce thickness when twisting into a single wire.
Use 15mm of ø2·4 heatshrink (590004)
Strip inner insulation to 10
Cut back centre wire to 15


Assemble transformer to plate with wires in position shown.
2off M3x8mm hexhd steel screw. 611003.
2off M3 internal shakeproof washer 615028.
Use locknut compound 500005 on these two screws.



4200

datron INSTRUMENTS

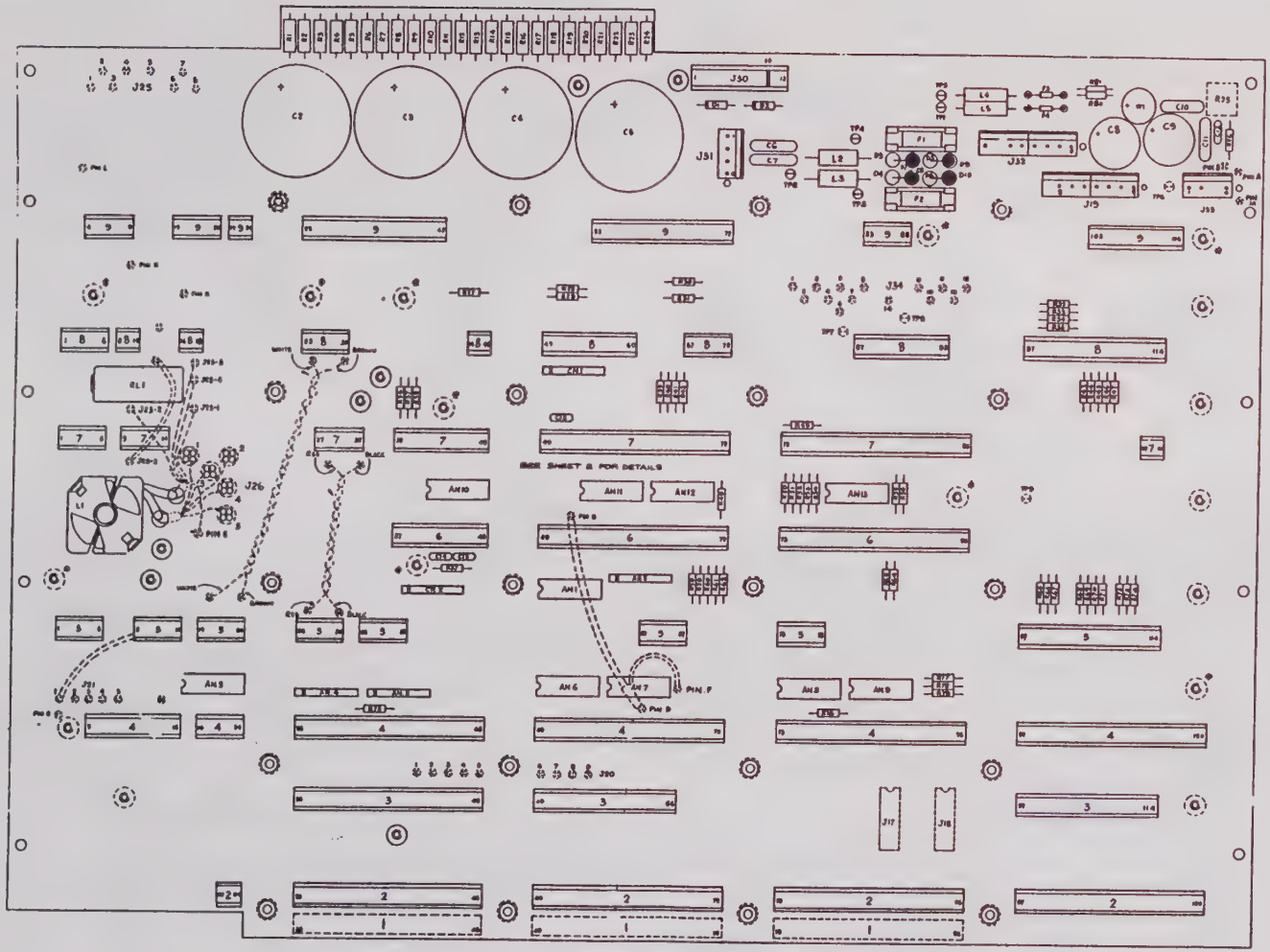
H.F. TRANSFORMER ASSEMBLY

Layout Drawing No. 480578-4.1 Sheet 1 © Datron Instruments 1986

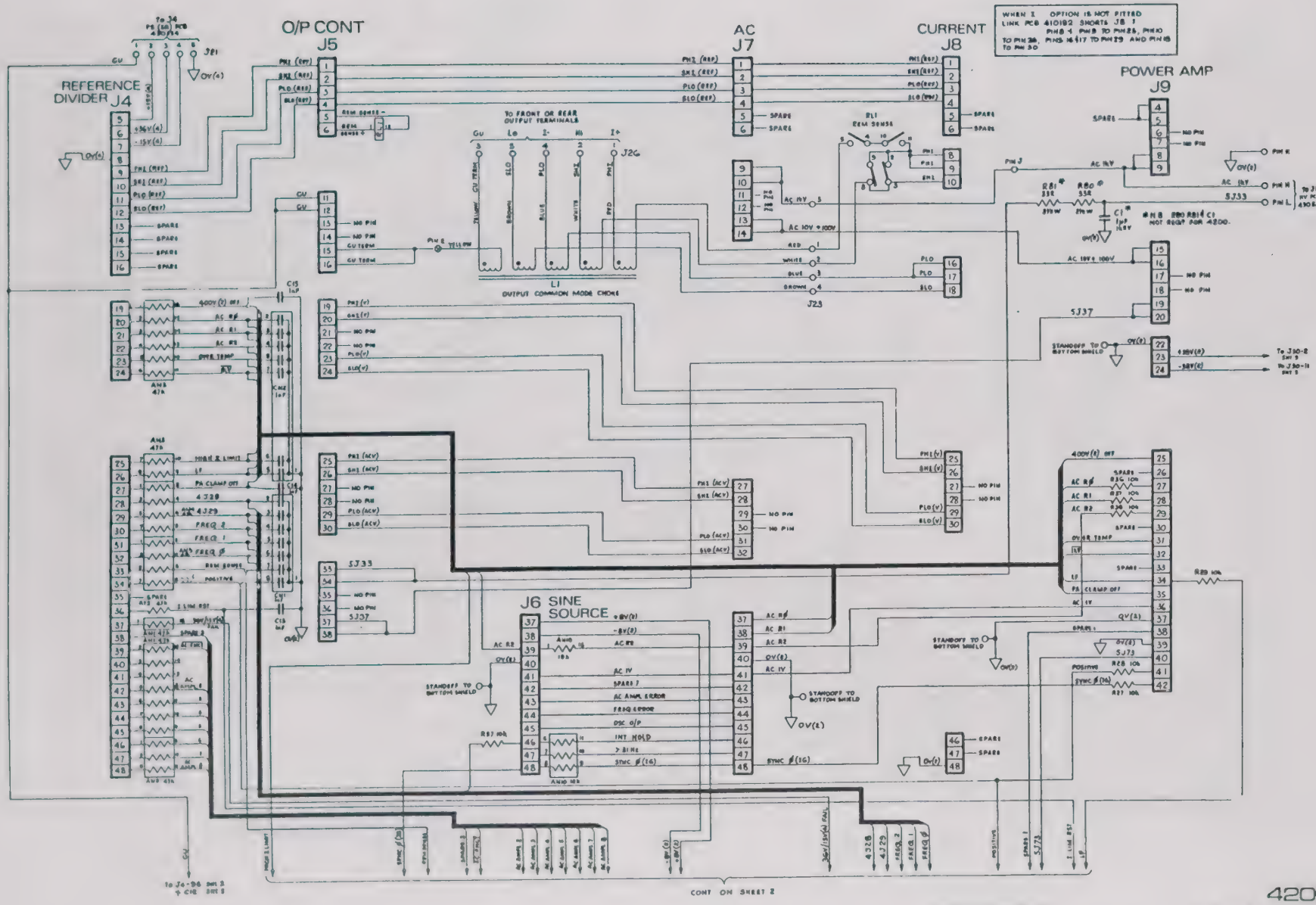
 © Datron Instruments 1986

MOTHER ASSEMBLY

datron INSTRUMENTS 4200



Connector and Pin numbers		Diagram
J1	25-96	7.16-4
J2	22-120	7.16-4
J3	25-66 97-114	7.16-4
J4	5-16 19-48 49-96 97-120	7.16-1 7.16-2 7.16-4
J5	1-6 11-16 19-30 33-38 62-67 73-78 97-114	7.16-1 7.16-2 7.16-3
J6	37-48 49-96	7.16-1 7.16-2
J7	1-6 9-14 27-32 37-48 49-96 112-114	7.16-1 7.16-2 7.16-3
J8	1-6 8-10 16-18 25-30 46-48 49-60 67-72 82-93 97-114	7.16-1 7.16-2 7.16-3
J9	4-9 15-20 22-42 55-72 83-88 105-116	7.16-1 7.16-2 7.16-3
J17/18	1-16	7.16-4
J19	1-8	7.16-3
J20	1-9	7.16-4
J21/23	1-5	7.16-1
J25	1-8	7.16-2
J26	1-5	7.16-1
J30 J31/33 J32	1-2 6-7 11-12 1-4 1-8	7.16-5
J34	1-13	7.16-2
Pin Pin Pin	A,B,C,M D,F,G H,J,K,L	7.16-5 7.16-2 7.16-1

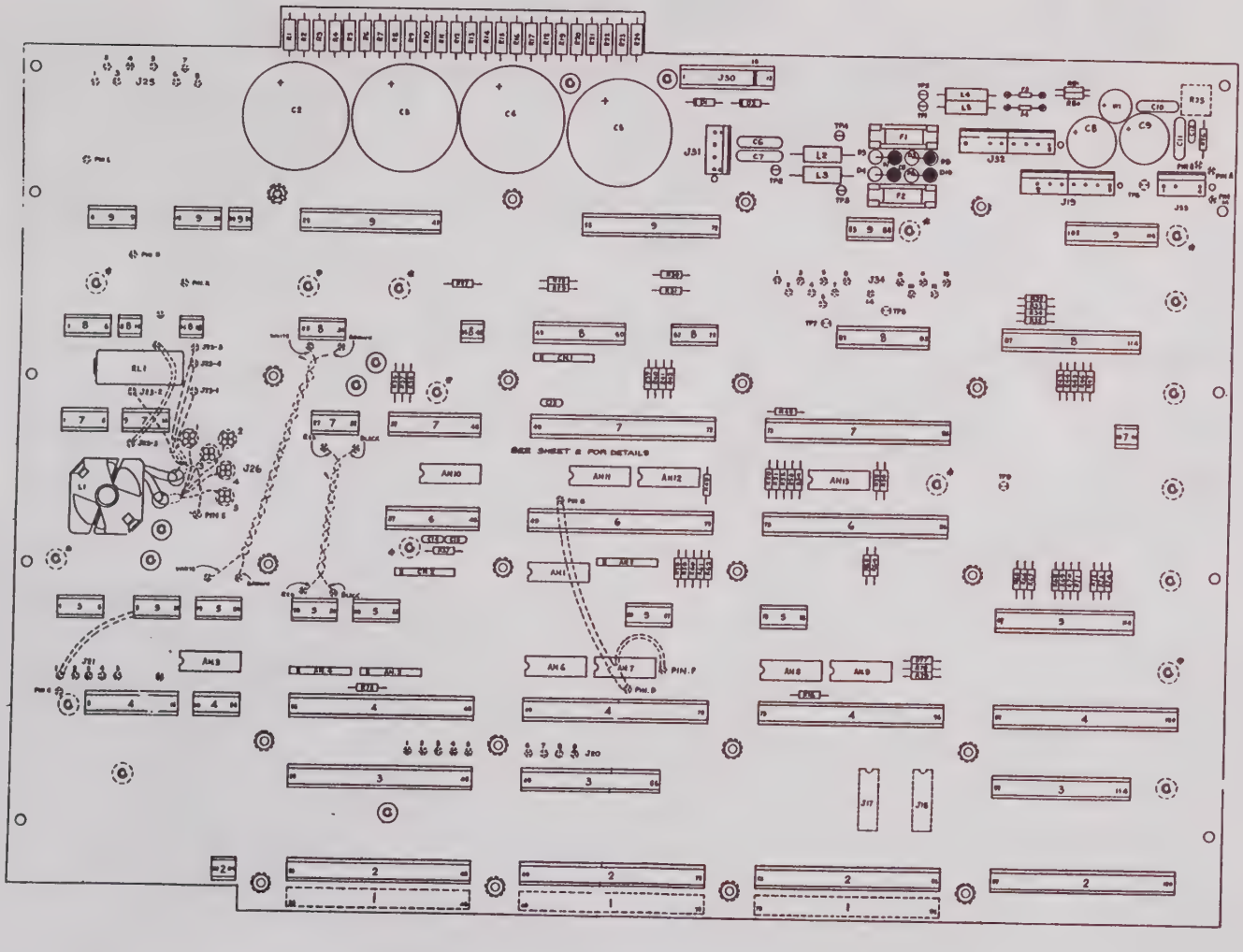


Circuit Diagram No. 430532-8.1 Sheet 1 © Datron Instruments 1986

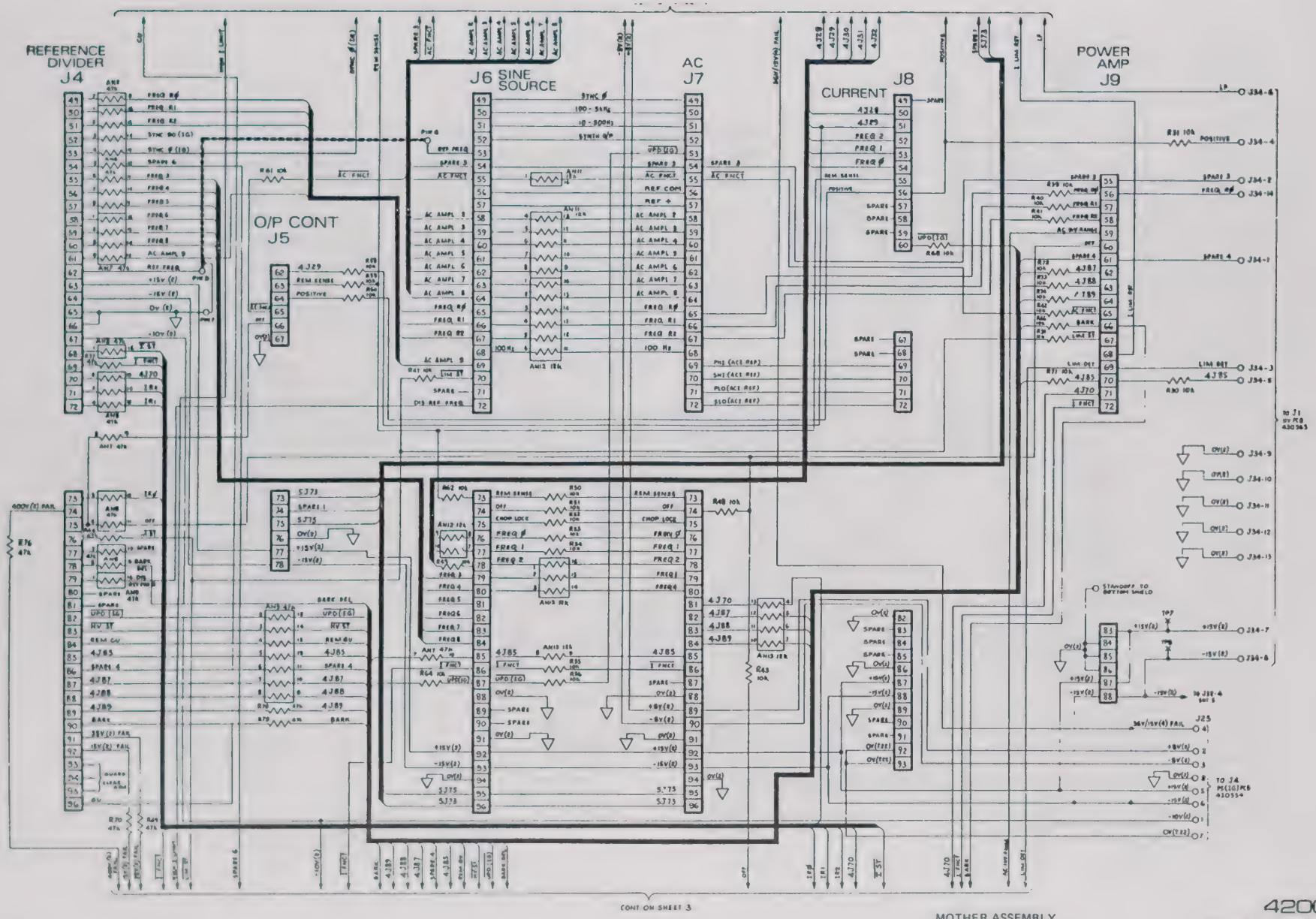
© Datron Instruments 1986

MOTHER ASSEMBLY

datron INSTRUMENTS 4200



Connector and Pin numbers		Diagram
J1	25-96	7.16-4
J2	22-120	7.16-4
J3	25-66 97-114	7.16-4
J4	5-16 19-48 49-96 97-120	7.16-1 7.16-2 7.16-4
J5	1-6 11-16 19-30 33-38 62-67 73-78 97-114	7.16-1 7.16-2 7.16-3
J6	37-48 49-96	7.16-1 7.16-2
J7	1-6 9-14 27-32 37-48 49-96 112-114	7.16-1 7.16-2 7.16-3
J8	1-6 8-10 16-18 25-30 46-48 49-60 67-72 82-93 97-114	7.16-1 7.16-2 7.16-3
J9	4-9 15-20 22-42 55-72 83-88 105-116	7.16-1 7.16-2 7.16-3
J17/18	1-16	7.16-4
J19	1-8	7.16-3
J20	1-9	7.16-4
J21/23	1-5	7.16-1
J25	1-8	7.16-2
J26	1-5	7.16-1
J30 J31/33 J32	1-2 6-7 11-12 1-4 1-8	7.16-5
J34	1-13	7.16-2
Pin Pin Pin	A,B,C,M D,F,G H,J,K,L	7.16-5 7.16-2 7.16-1



4200

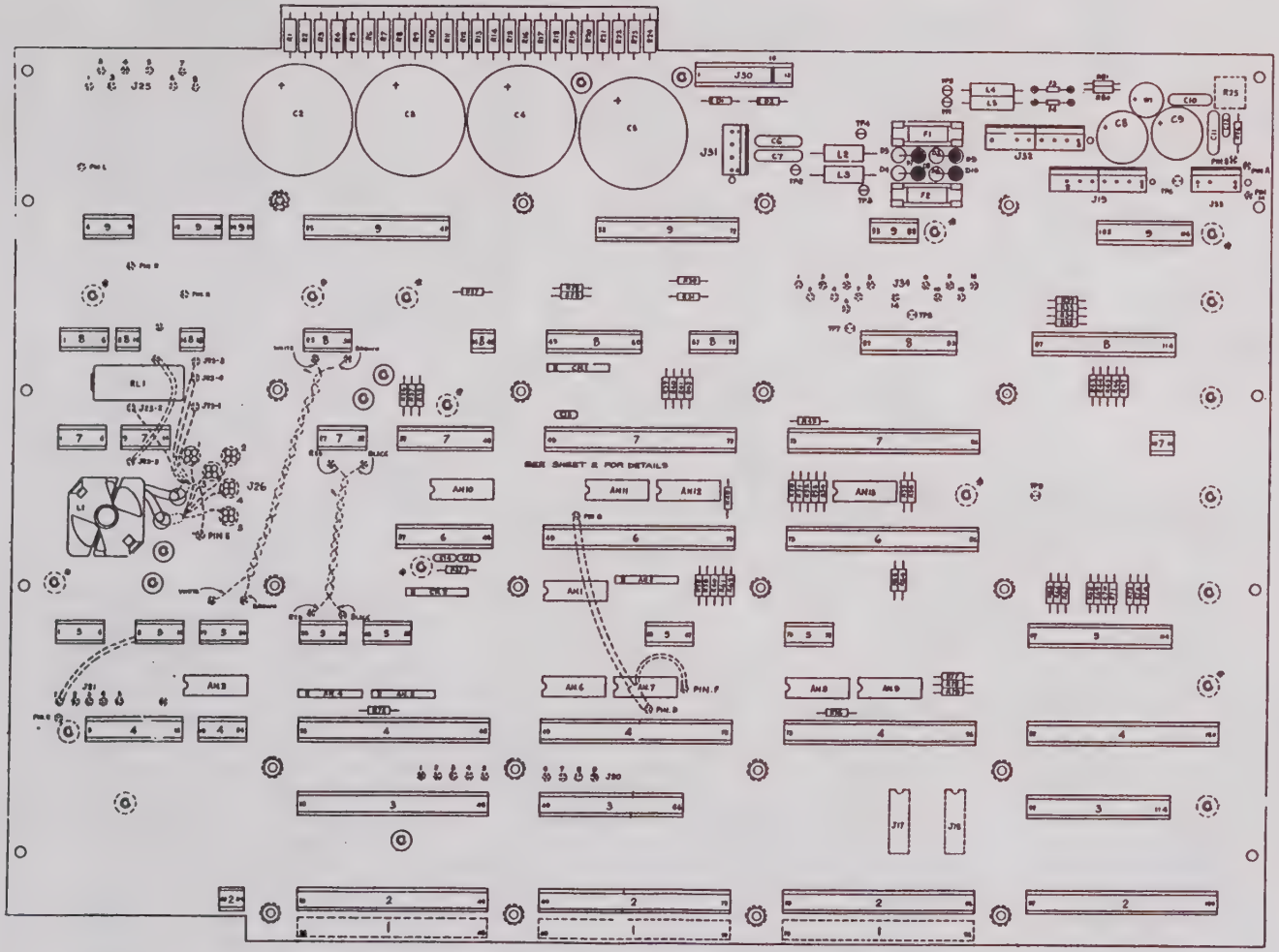
datron INSTRUMENTS

Circuit Diagram No. 430532-8.1 Sheet 2 © Datron Instruments 1986

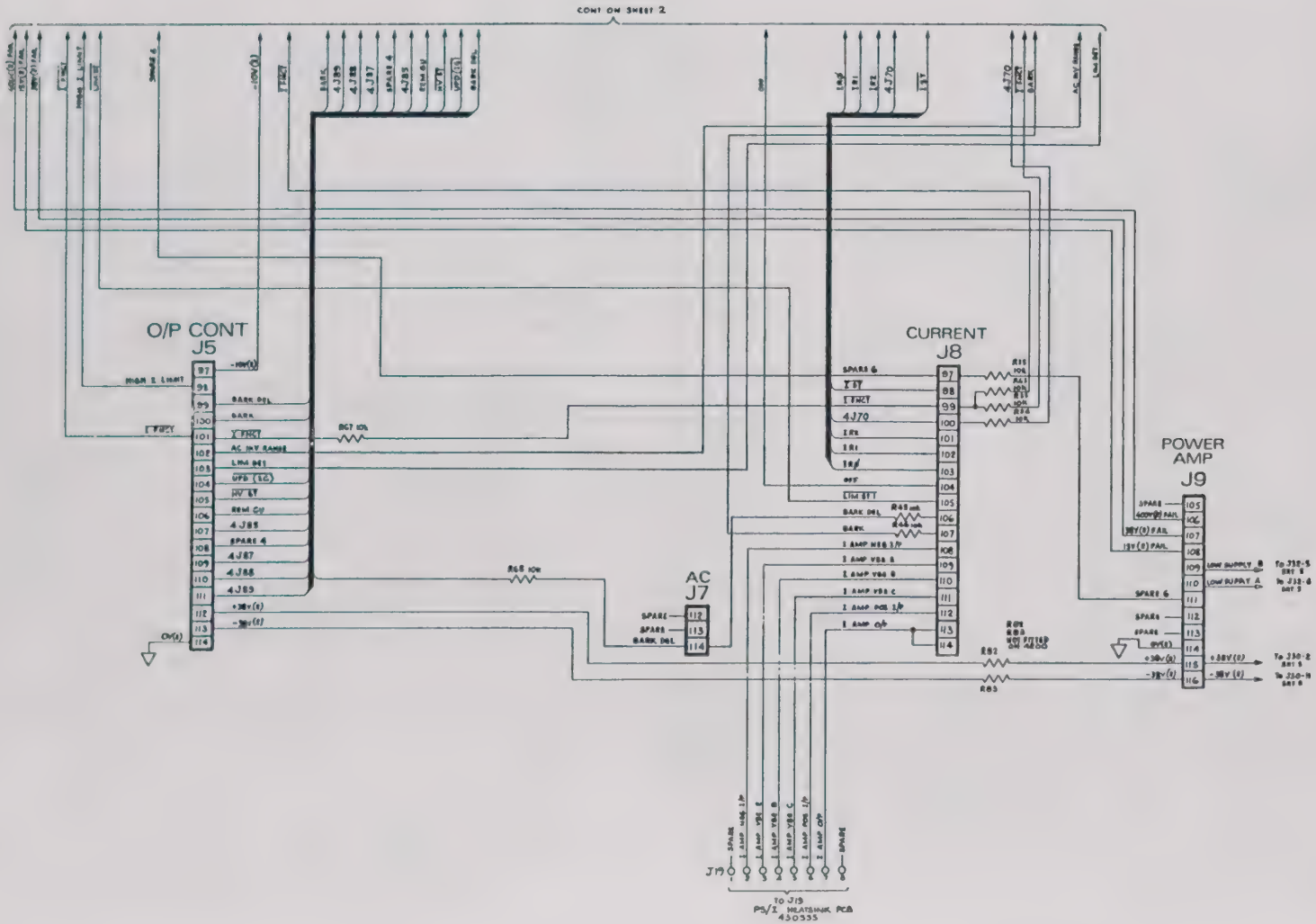
 © Datron Instruments 1986

MOTHER ASSEMBLY

datron INSTRUMENTS 4200



Connector and Pin numbers		Diagram
J1	25-96	7.16-4
J2	22-120	7.16-4
J3	25-66 97-114	7.16-4
J4	5-16 19-48 49-96 97-120	7.16-1 7.16-2 7.16-4
J5	1-6 11-16 19-30 33-38 62-67 73-78 97-114	7.16-1 7.16-2 7.16-3
J6	37-48 49-96	7.16-1 7.16-2
J7	1-6 9-14 27-32 37-48 49-96 112-114	7.16-1 7.16-2 7.16-3
J8	1-6 8-10 16-18 25-30 46-48 49-60 67-72 82-93 97-114	7.16-1 7.16-2 7.16-3
J9	4-9 15-20 22-42 55-72 83-88 105-116	7.16-1 7.16-2 7.16-3
J17/18	1-16	7.16-4
J19	1-8	7.16-3
J20	1-9	7.16-4
J21/23	1-5	7.16-1
J25	1-8	7.16-2
J26	1-5	7.16-1
J30 J31/33 J32	1-2 6-7 11-12 1-4 1-8	7.16-5
J34	1-13	7.16-2
Pin Pin Pin	A,B,C,M D,F,G H,J,K,L	7.16-5 7.16-2 7.16-1



MOTHER ASSEMBLY

4200

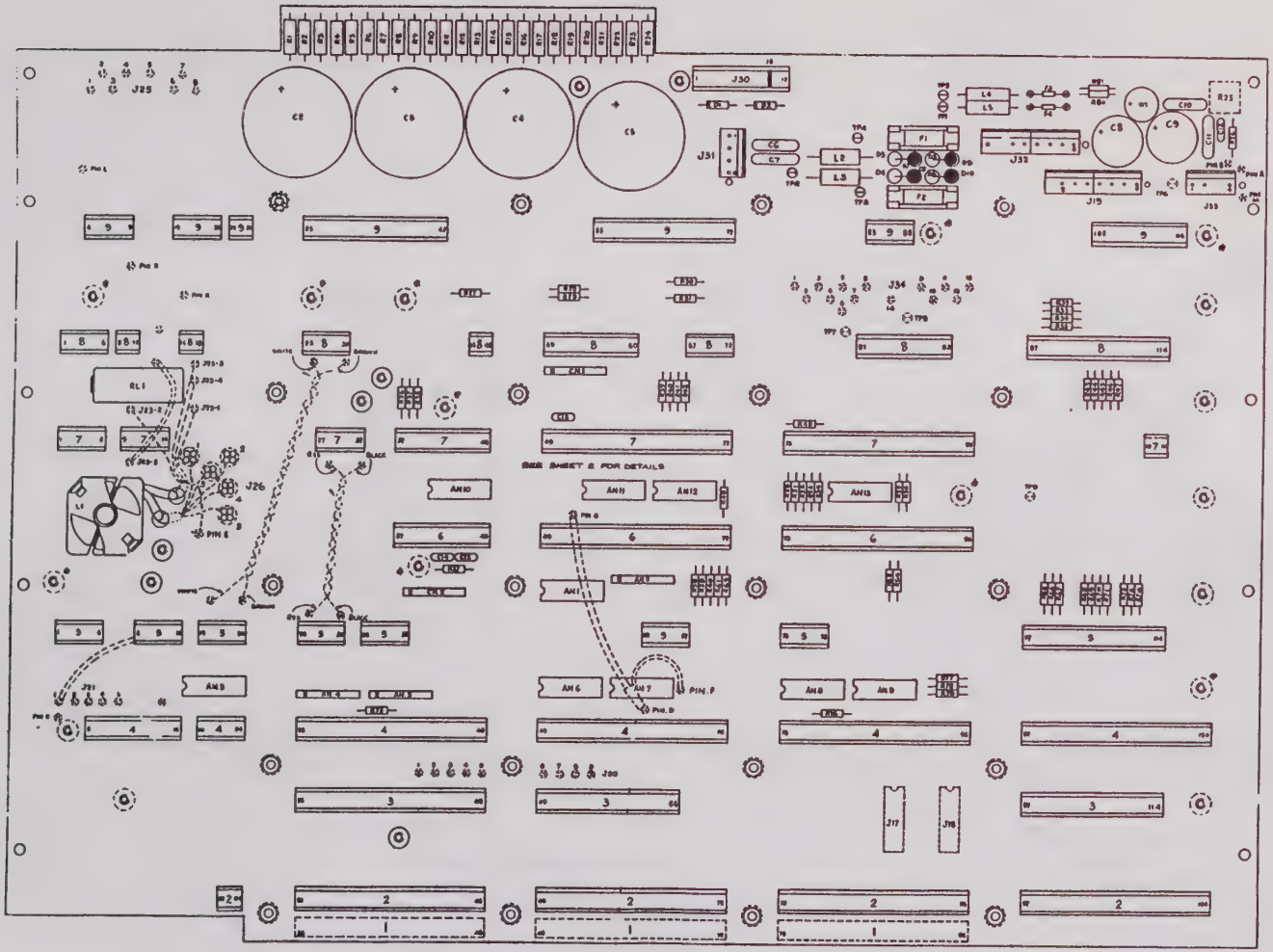
datron INSTRUMENTS

Circuit Diagram No. 430532-8.0 Sheet 3 © Datron Instruments 1986

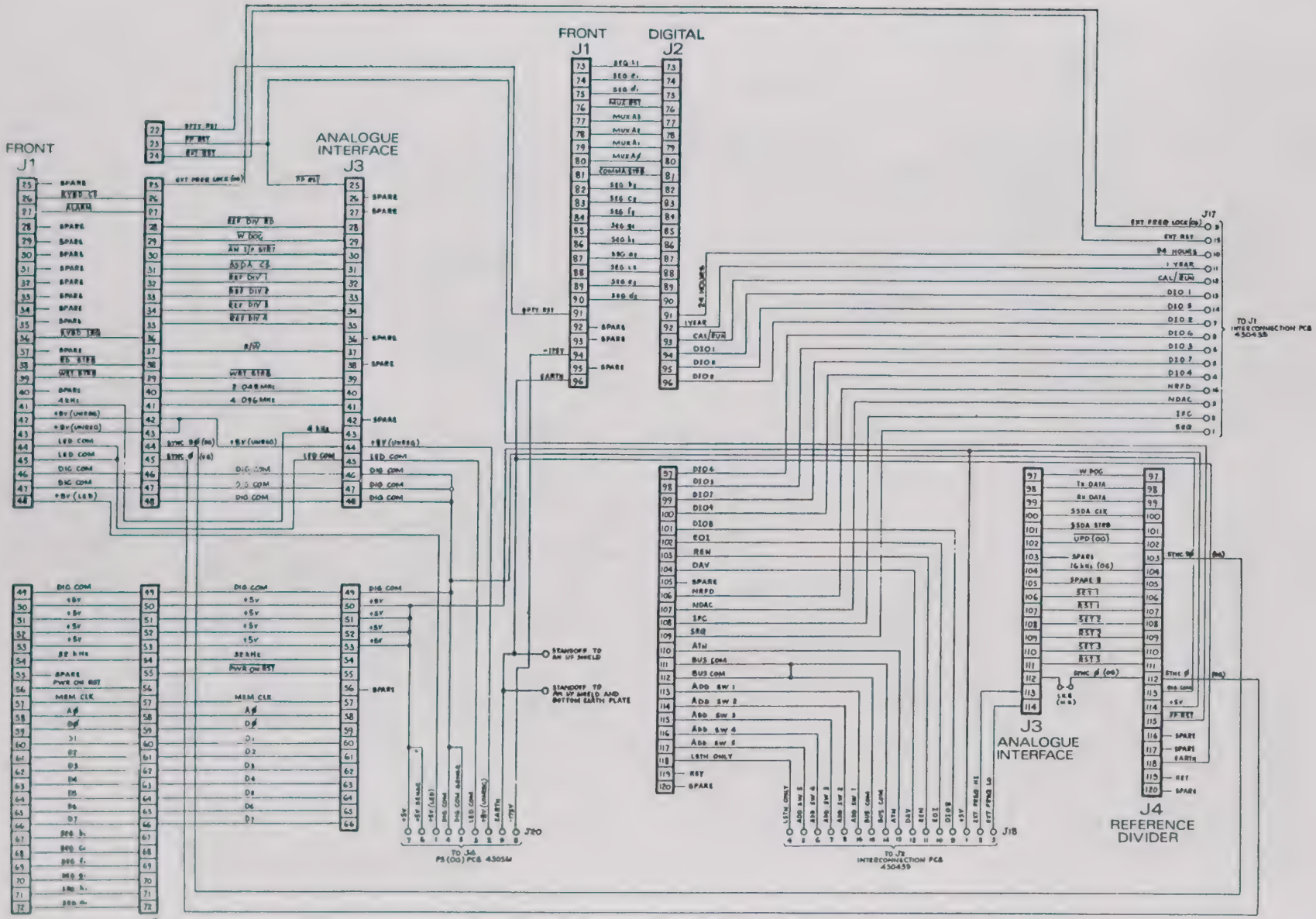
© Datron Instruments 1986

MOTHER ASSEMBLY

datron INSTRUMENTS 4200



Connector and Pin numbers		Diagram
J1	25-96	7.16-4
J2	22-120	7.16-4
J3	25-66 97-114	7.16-4
J4	5-16 19-48 49-96 97-120	7.16-1 7.16-2 7.16-4
J5	1-6 11-16 19-30 33-38 62-67 73-78 97-114	7.16-1 7.16-2 7.16-3
J6	37-48 49-96	7.16-1 7.16-2
J7	1-6 9-14 27-32 37-48 49-96 112-114	7.16-1 7.16-2 7.16-3
J8	1-6 8-10 16-18 25-30 46-48 49-60 67-72 82-93 97-114	7.16-1 7.16-2 7.16-3
J9	4-9 15-20 22-42 55-72 83-88 105-116	7.16-1 7.16-2 7.16-3
J17/18	1-16	7.16-4
J19	1-8	7.16-3
J20	1-9	7.16-4
J21/23	1-5	7.16-1
J25	1-8	7.16-2
J26	1-5	7.16-1
J30 J31/33 J32	1-2 6-7 11-12 1-4 1-8	7.16-5
J34	1-13	7.16-2
Pin Pin Pin	A,B,C,M D,F,G H,J,K,L	7.16-5 7.16-2 7.16-1



4200

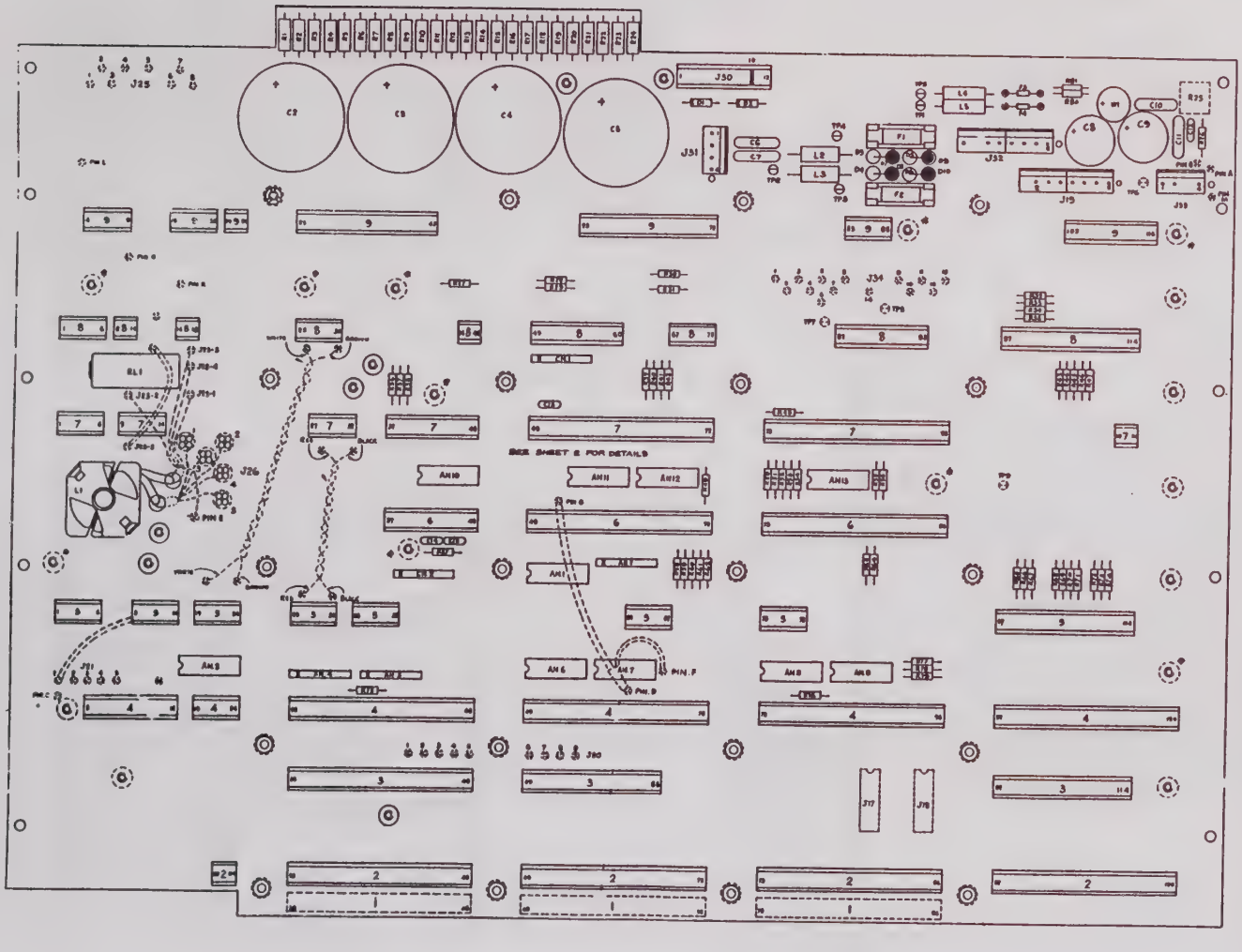
datron INSTRUMENTS

Circuit Diagram No. 430532-80 Sheet 4 © Datron Instruments 1986

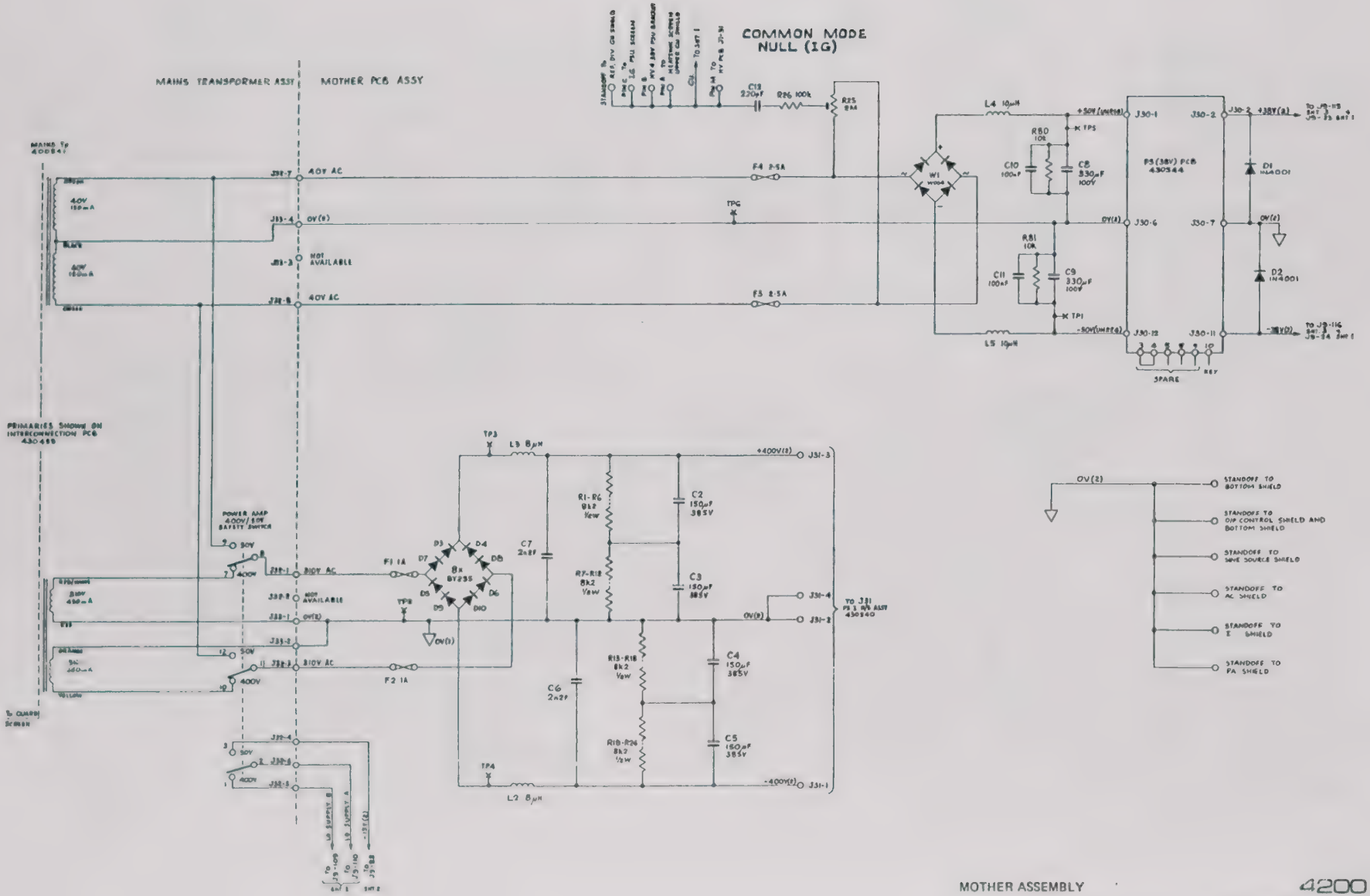
 © Datron Instruments 1986

MOTHER ASSEMBLY

datron INSTRUMENTS 4200



Connector and Pin numbers		Diagram
J1	25-96	7.16-4
J2	22-120	7.16-4
J3	25-66 97-114	7.16-4
J4	5-16 19-48 49-96 97-120	7.16-1 7.16-2 7.16-4
J5	1-6 11-16 19-30 33-38 62-67 73-78 97-114	7.16-1 7.16-2 7.16-3
J6	37-48 49-96	7.16-1 7.16-2
J7	1-6 9-14 27-32 37-48 49-96 112-114	7.16-1 7.16-2 7.16-3
J8	1-6 8-10 16-18 25-30 46-48 49-60 67-72 82-93 97-114	7.16-1 7.16-2 7.16-3
J9	4-9 15-20 22-42 55-72 83-88 105-116	7.16-1 7.16-2 7.16-3
J17/18	1-16	7.16-4
J19	1-8	7.16-3
J20	1-9	7.16-4
J21/23	1-5	7.16-1
J25	1-8	7.16-2
J26	1-5	7.16-1
J30 J31/33 J32	1-2 6-7 11-12 1-4 1-8	7.16-5
J34	1-13	7.16-2
Pin Pin Pin	A,B,C,M D,F,G H,J,K,L	7.16-5 7.16-2 7.16-1



MOTHER ASSEMBLY

400V Power Supply, 38V Power Supply and Common Mode Null

4200

datron INSTRUMENTS

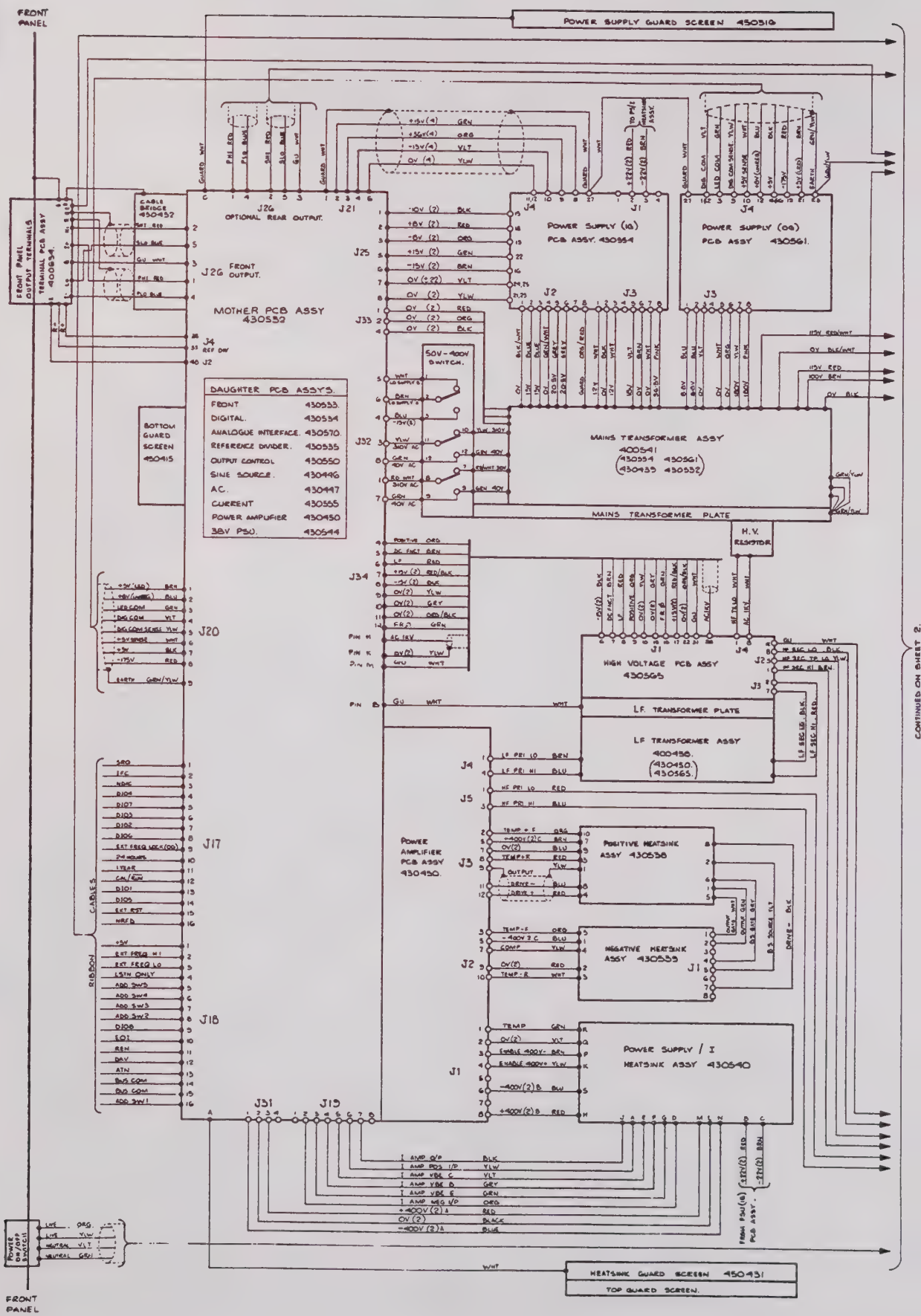
Circuit Diagram No. 430532-8.0 Sheet 5 © Datron Instruments 1986

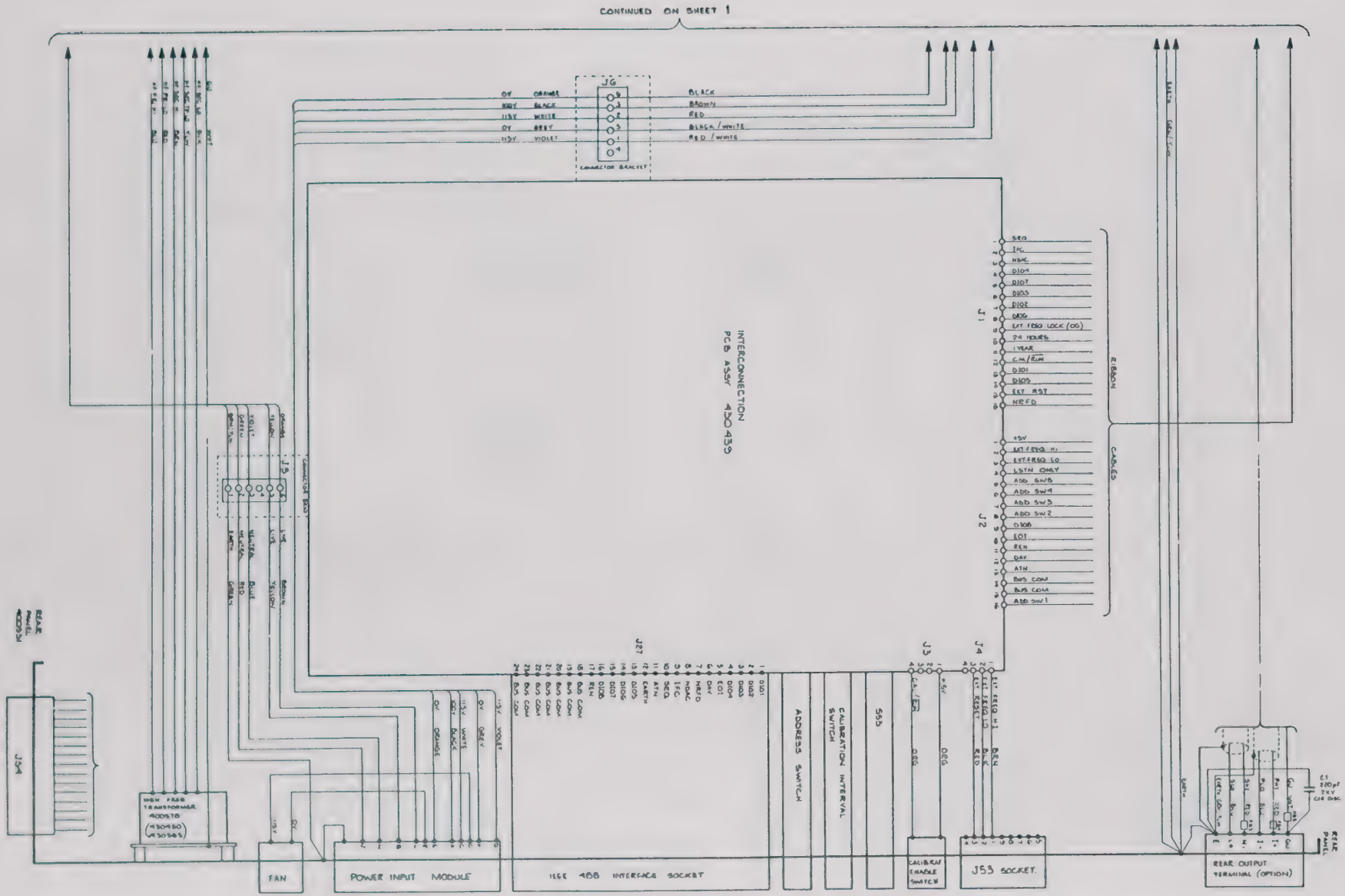
7.18.5

Circuit Diagram No. 430530-B.4 Sheet 1 © Datron Instruments 1988

datron INSTRUMENTS 4200

INTERCONNECTIONS





INTERCONNECTIONS

4200

datron INSTRUMENTS

Circuit Diagram No. 430530-8.1 Sheet 2 © Datron Instruments 1986

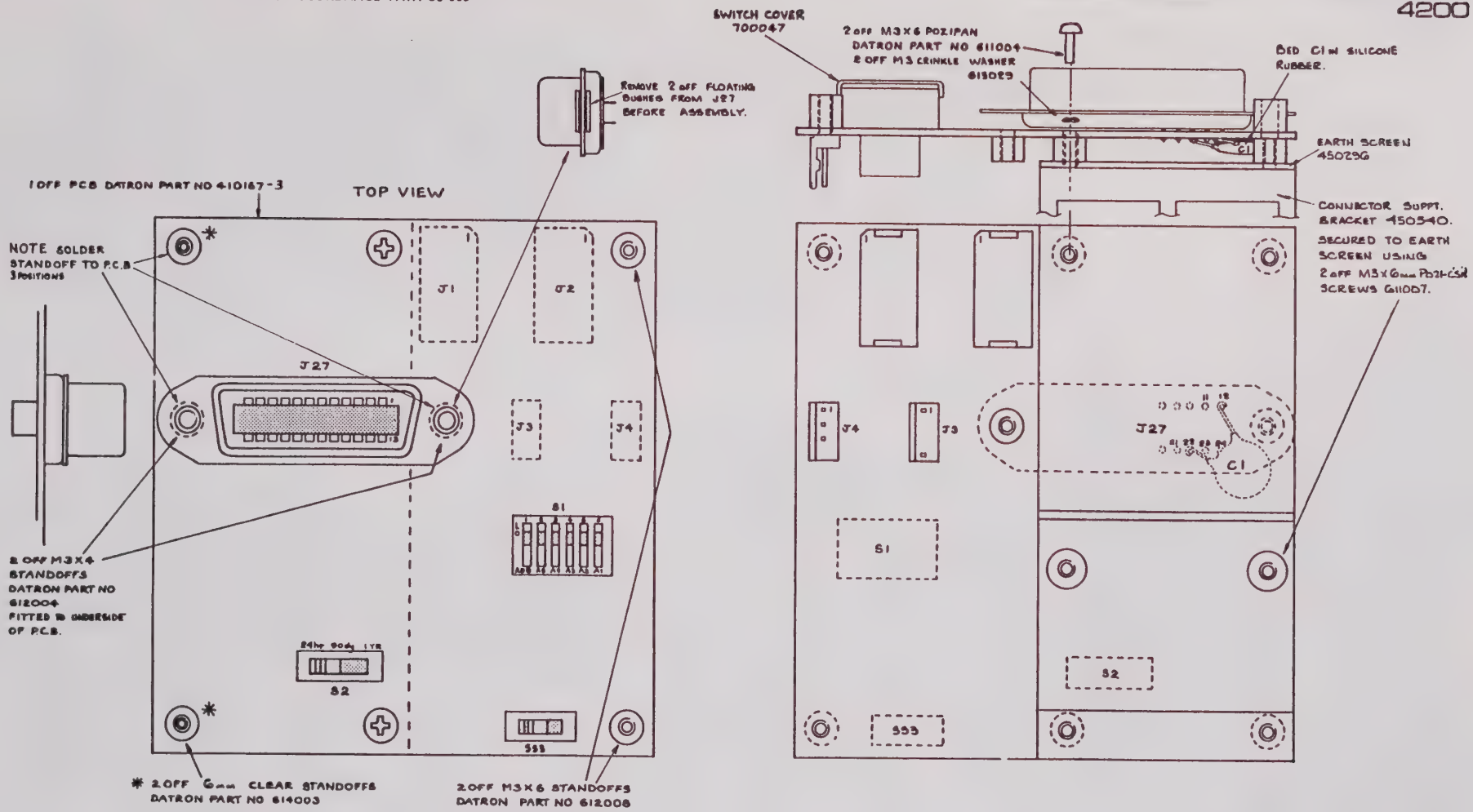
 © Datron Instruments 1986

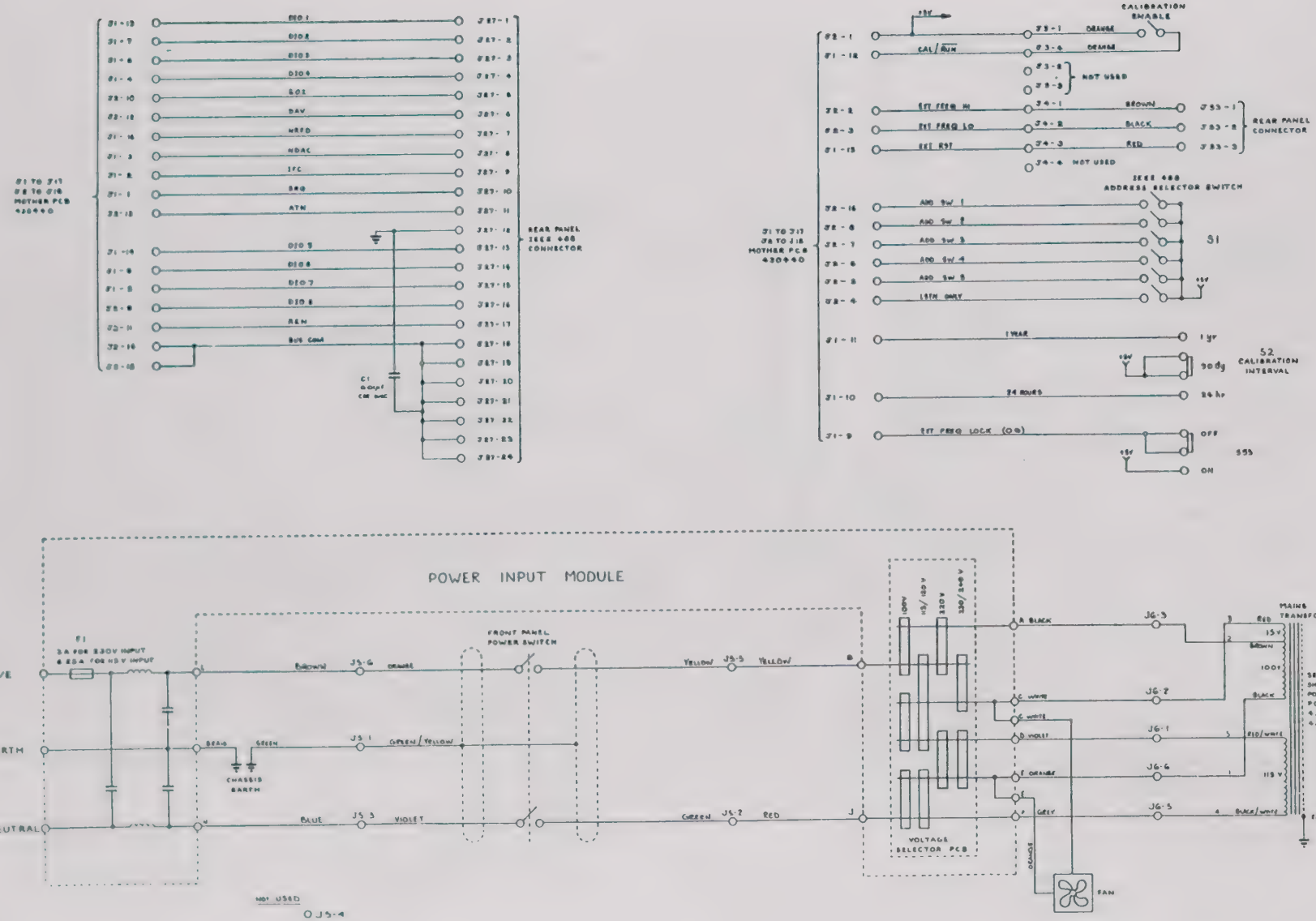
THIRD ANGLE PROJECTION

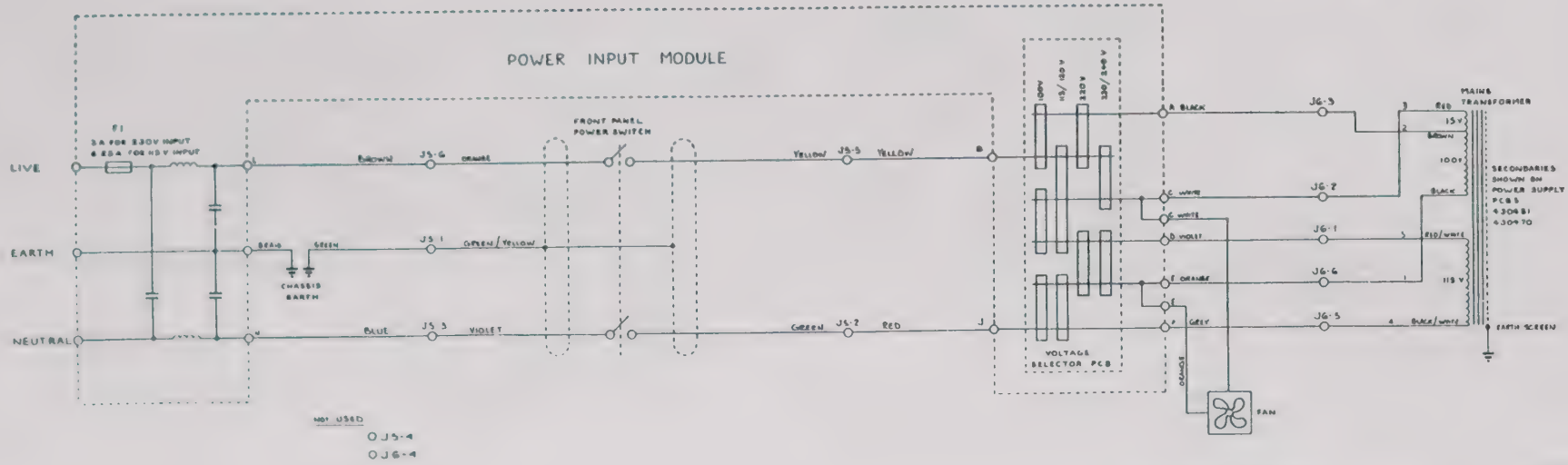
DRAWN IN ACCORDANCE WITH BS 308

INTERCONNECTION ASSEMBLY

datron INSTRUMENTS 4200


SWITCH COVER 700047
2 off M3 x 6 POZIPAN DATRON PART NO 611004
2 OFF M3 CRINKLE WASHER 613023
BED CI in SILICONE RUBBER.
EARTH SCREEN 450290
CONNECTOR SUPPT. BRACKET 450540.
SECURED TO EARTH SCREEN USING 2 off M3 x 6mm Pozi-CSK SCREWS 611007.
REMOVE 2 off FLOATING BUSHES FROM J27 BEFORE ASSEMBLY.
1 OFF PCB DATRON PART NO 410187-3
TOP VIEW
NOTE SOLDER STANDOFF TO P.C.B 3 POSITIONS
J1
J2
J27
J3
J4
S1
S2
S3
2 OFF M3 x 4 STANDOFFS DATRON PART NO 612004 FITTED TO UNDERSIDE OF P.C.B.
* 2 OFF 6mm CLEAR STANDOFFS DATRON PART NO 614003
2 OFF M3 x 6 STANDOFFS DATRON PART NO 612008
C1





INTERCONNECTION ASSEMBLY

4200

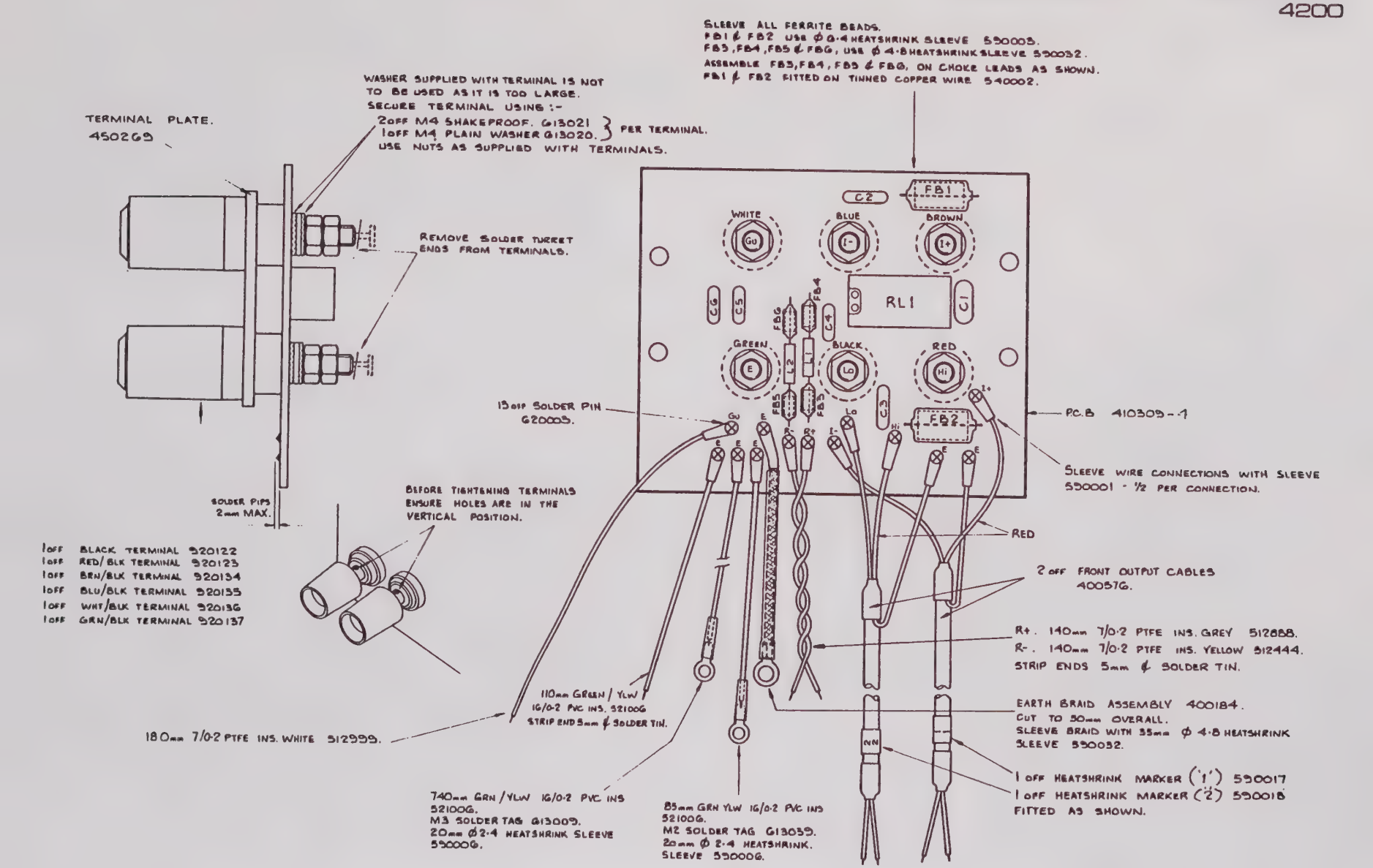
Interconnections, Power Input Module and Mains Transformer Primary

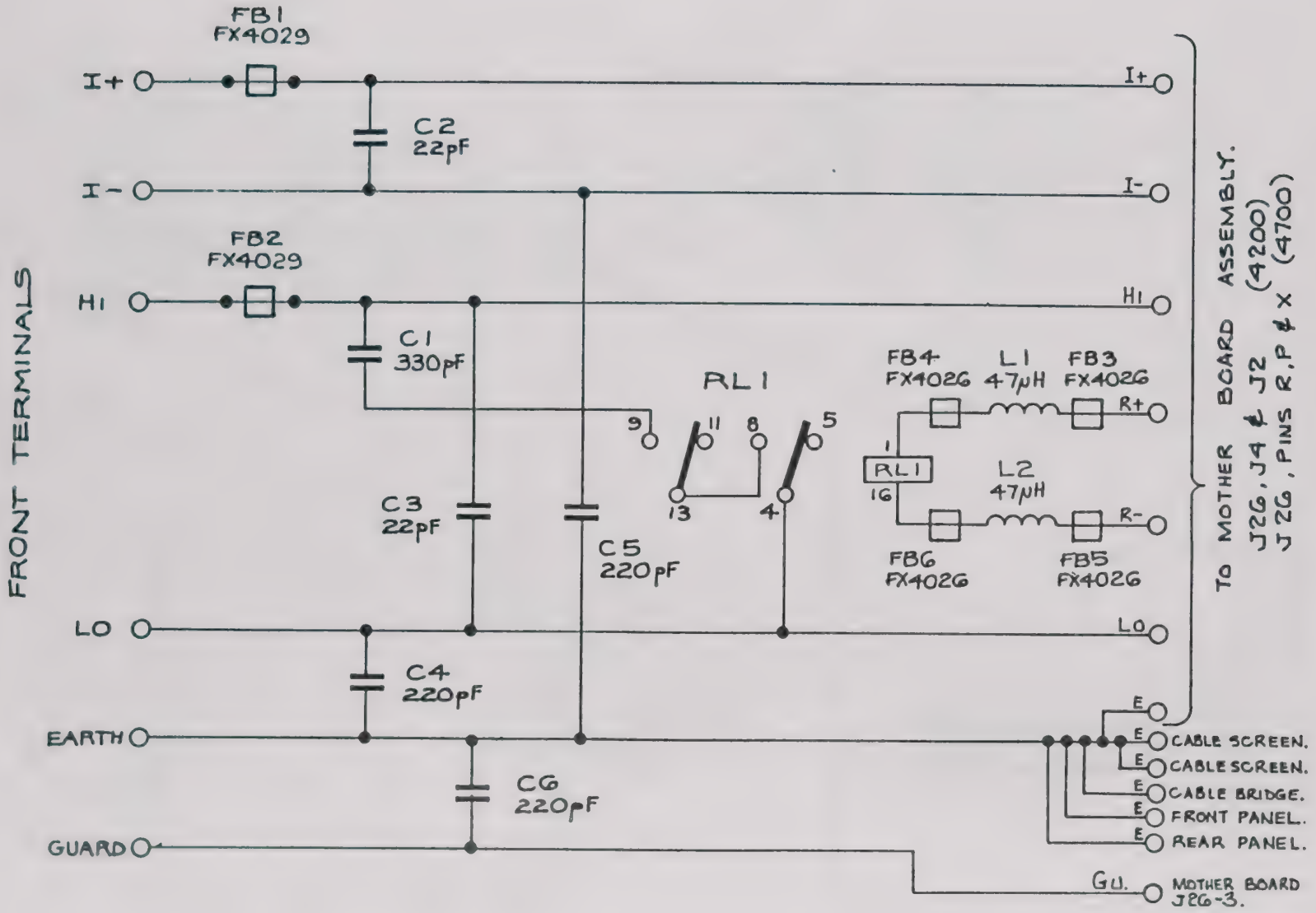
datron INSTRUMENTS

Circuit Diagram No. 430439-3.0 Sheet 1 © Datron Instruments 1986

TERMINAL BOARD ASSEMBLY

datron INSTRUMENTS 4200


SLEEVE ALL FERRITE BEADS.
FB1 & FB2 USE φ0·4 HEATSHRINK SLEEVE 590003.
FB3, FB4, FB5 & FB6, USE φ 4·8 HEATSHRINK SLEEVE 590032.
ASSEMBLE FB3, FB4, FB5 & FB6, ON CHOKE LEADS AS SHOWN.
FB1 & FB2 FITTED ON TINNED COPPER WIRE 540002.
WASHER SUPPLIED WITH TERMINAL IS NOT TO BE USED AS IT IS TOO LARGE.
SECURE TERMINAL USING :-
2off M4 SHAKEPROOF. G13021
1off M4 PLAIN WASHER G13020. } PER TERMINAL.
USE NUTS AS SUPPLIED WITH TERMINALS.
TERMINAL PLATE. 450269
REMOVE SOLDER TURRET ENDS FROM TERMINALS.
WHITE
BLUE
BROWN
GREEN
BLACK
RED
C2
FB1
C6
C5
FB6
C4
RL1
C1
C3
FB2
15off SOLDER PIN G20005.
PC.B 410309-1
SLEEVE WIRE CONNECTIONS WITH SLEEVE 590001 - ½ PER CONNECTION.
SOLDER PIPS 2mm MAX.
BEFORE TIGHTENING TERMINALS ENSURE HOLES ARE IN THE VERTICAL POSITION.
1off BLACK TERMINAL 920122
1off RED/BLK TERMINAL 920123
1off BRN/BLK TERMINAL 920134
1off BLU/BLK TERMINAL 920135
1off WHT/BLK TERMINAL 920136
1off GRN/BLK TERMINAL 920137
RED
2 off FRONT OUTPUT CABLES 400576.
R+. 140mm 7/0·2 PTFE INS. GREY 512888.
R-. 140mm 7/0·2 PTFE INS. YELLOW 512444.
STRIP ENDS 5mm & SOLDER TIN.
110mm GREEN / YLW 16/0·2 PVC INS. 521006 STRIP ENDS 5mm & SOLDER TIN.
EARTH BRAID ASSEMBLY 400184.
CUT TO 50mm OVERALL.
SLEEVE BRAID WITH 35mm φ 4·8 HEATSHRINK SLEEVE 590032.
180mm 7/0·2 PTFE INS. WHITE 512999.
1 off HEATSHRINK MARKER ('1') 590017
1 off HEATSHRINK MARKER ('2') 590018
FITTED AS SHOWN.
740mm GRN/YLW 16/0·2 PVC INS 521006.
M3 SOLDER TAG G13009.
20mm φ2·4 HEATSHRINK SLEEVE 590006.
85mm GRN YLW 16/0·2 PVC INS 521006.
M2 SOLDER TAG G13039.
20mm φ 2·4 HEATSHRINK. SLEEVE 590006.



TERMINAL BOARD ASSEMBLY

4200

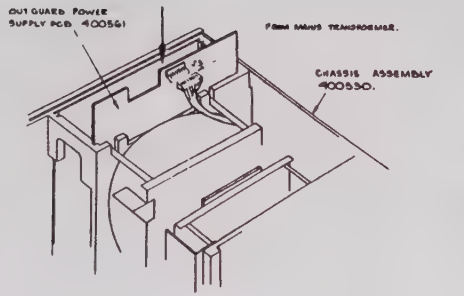
datron INSTRUMENTS

Circuit Diagram No. 430634--1.2 Sheet 1 © Datron Instruments 1986

datron INSTRUMENTS 4200

MAIN ASSEMBLY

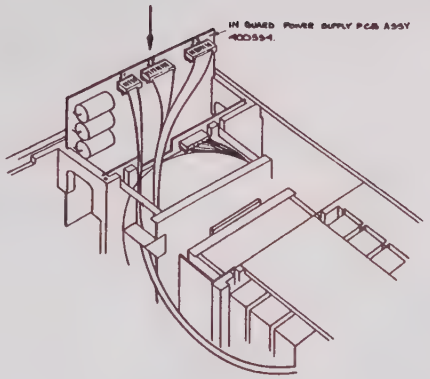
(1)



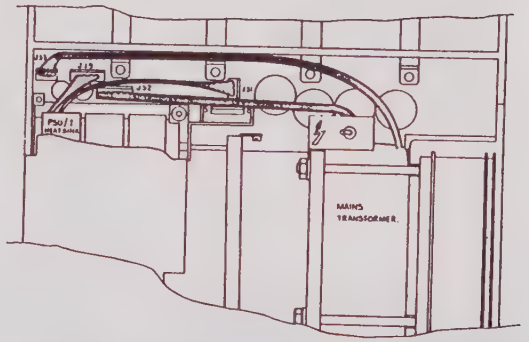
NOTE :
CLEAN ALL PCB EDGE CONTACTS WITH CLEANING FLUID 900010 BOTH BEFORE INITIAL ASSEMBLY & AT FINAL INSTRUMENT FINISHING.
STEPS. 1. 2. 4. 5 & 6

(2)

IN GUARD PSU PCB CONNECTIONS
J1. FROM POWER SUPPLY HEATSINK.
J2. FROM MAINS TRANSFORMER.
J3. FROM MAINS TRANSFORMER.

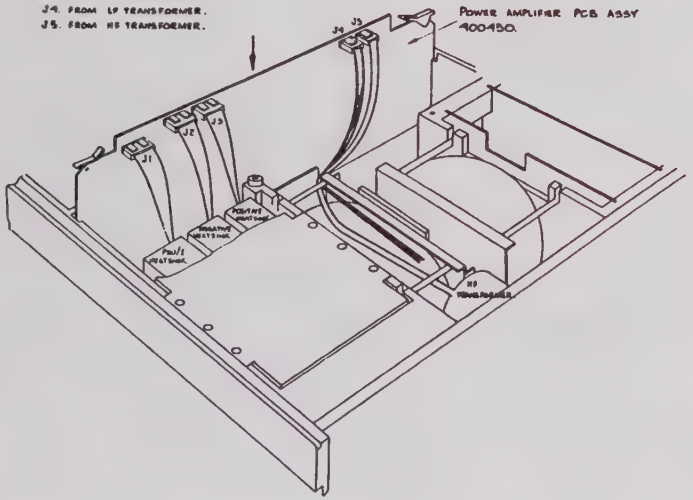


(3)

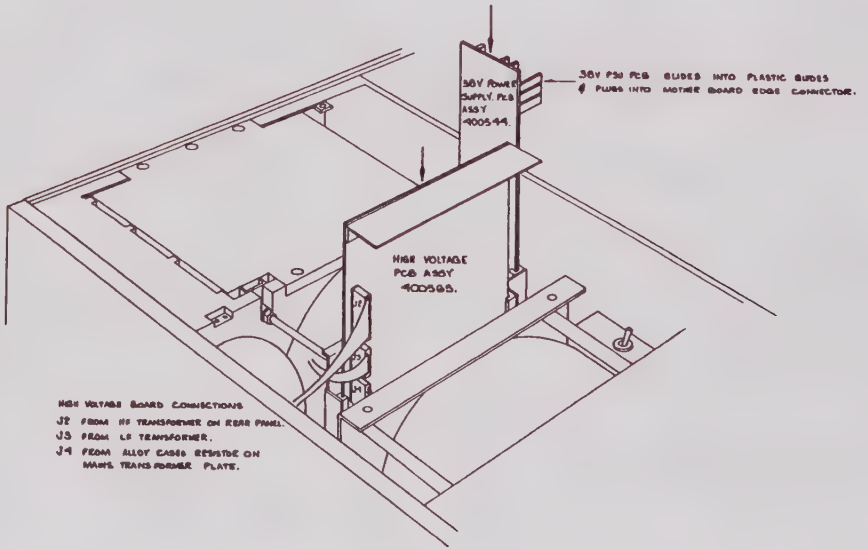


(4)

POWER AMP BOARD CONNECTIONS.
J1. FROM PSU/1 HEATSINK.
J2. FROM POSITIVE HEATSINK.
J3. FROM NEGATIVE HEATSINK.
J4. FROM LF TRANSFORMER.
J5. FROM HF TRANSFORMER.



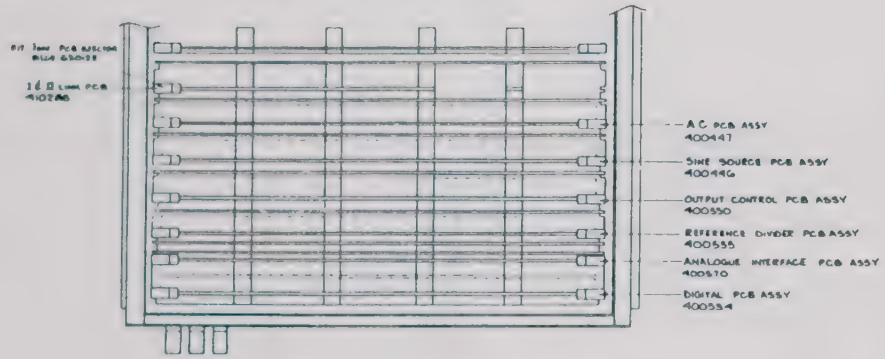
(5)

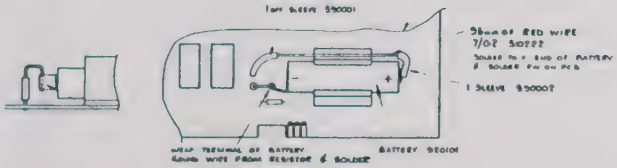

36V POWER SUPPLY PCB ASSY 400544.
36V PSU PCB GUIDES INTO PLASTIC GUIDES & PLUGS INTO MOTHER BOARD EDGE CONNECTOR.
HIGH VOLTAGE PCB ASSY 400565.
J2
J3
J4

HIGH VOLTAGE BOARD CONNECTIONS
J2 FROM HF TRANSFORMER ON REAR PANEL.
J3 FROM LF TRANSFORMER.
J4 FROM ALLOY CASE6 RESISTOR ON MAINS TRANSFORMER PLATE.

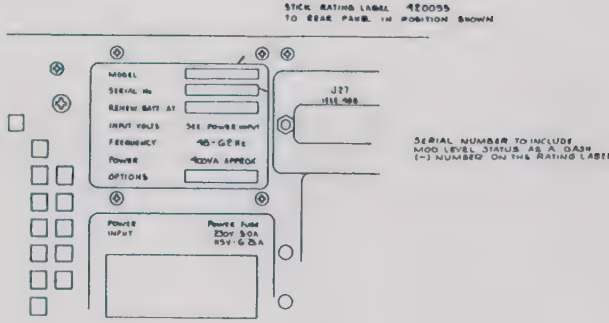
6

NOTE
CLEAN ALL PCB EDGE CONTACTS WITH CLEANING FLUID 900016 BOTH BEFORE INITIAL ASSEMBLY AND AT FINAL INSTRUMENT FINISHING

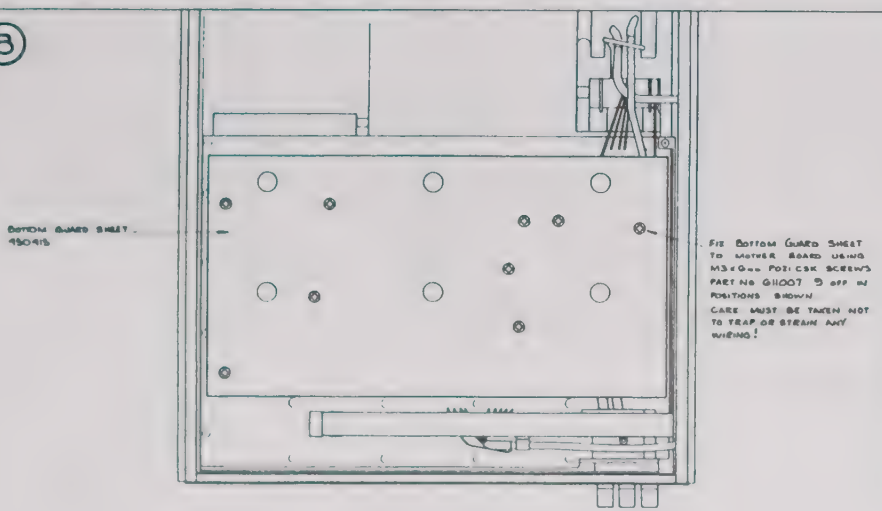

FIT 1mm PCB AUSCHEM 61.5mm FROM REAR PANEL
16 Q 1mm PCB 410286
A.C. PCB ASSY 400447
SINE SOURCE PCB ASSY 400446
OUTPUT CONTROL PCB ASSY 400550
REFERENCE DIVIDER PCB ASSY 400535
ANALOGUE INTERFACE PCB ASSY 400670
DIGITAL PCB ASSY 400534


1cm SLEEVE 930001
9cm of RED WIRE 7/0.2 30022
SOLDER TO + END OF BATTERY & SOLDER ON PCB
1 SLEEVE 930002
WRAP TERMINAL OF BATTERY ROUND WIRE FROM RESISTOR & SOLDER
BATTERY 950004

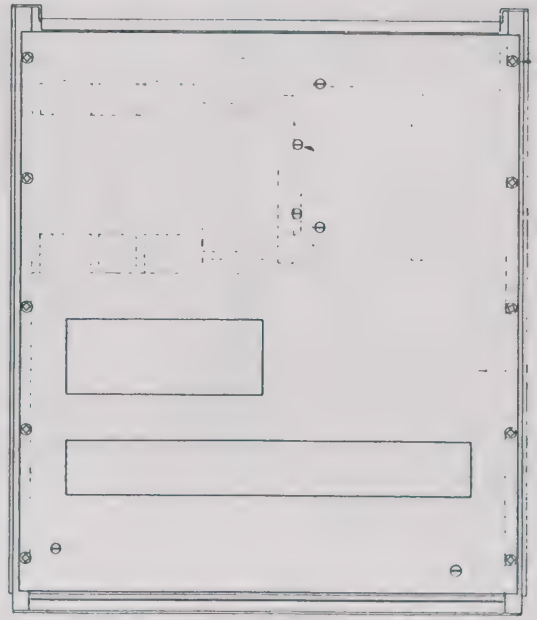
7



8


BOTTOM GUARD SHEET 480415
FIT BOTTOM GUARD SHEET TO MOTHER BOARD USING M3x6mm POZI CSK SCREWS PART No G11007 3 off IN POSITIONS SHOWN
CARE MUST BE TAKEN NOT TO TRAP OR STRAIN ANY WIRING!

9


FIT M4x8mm POZI-CSK SCREWS G11058 IN 10 POSITIONS.
FIT M3x6mm SLOTTED PAN SCREW G11076 IN 6 POSITIONS
BOTTOM EARTH SHEET 450414

MAIN ASSEMBLY

4200
datron INSTRUMENTS

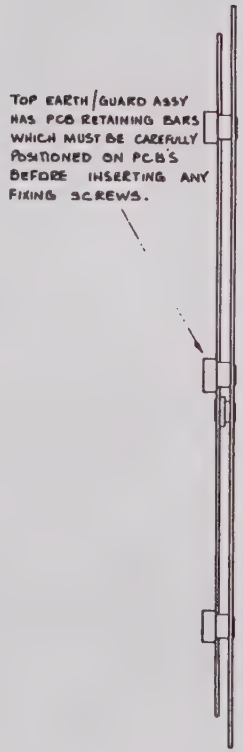
Layout Drawing No. 480529-6.1 Sheet 2 © Datron Instruments 1986

7 1R..1

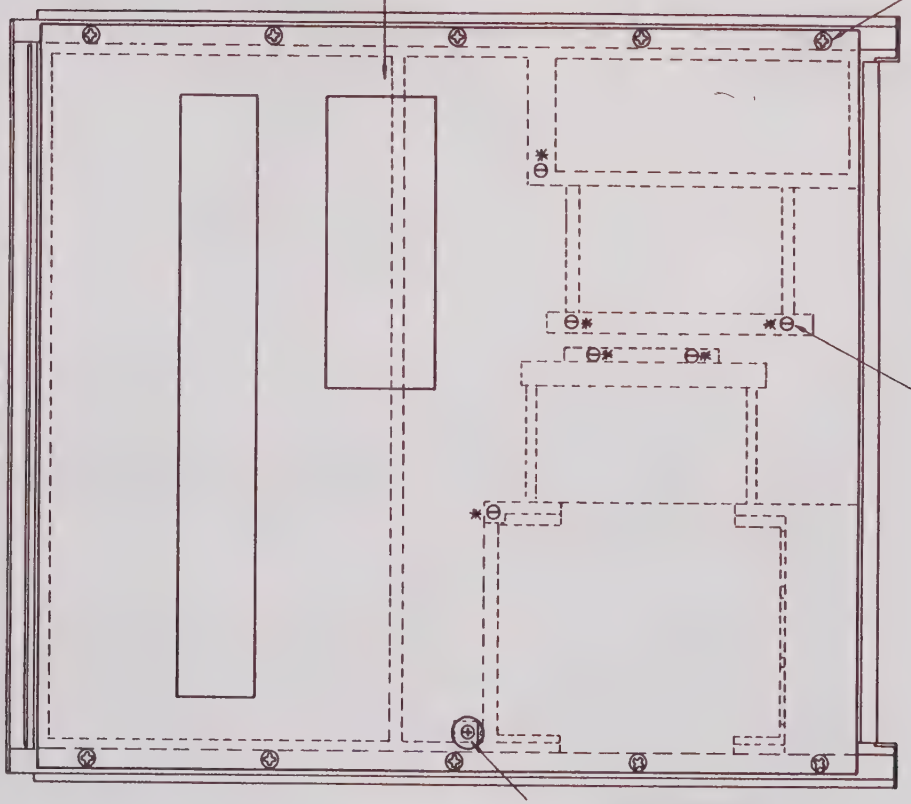
MAIN ASSEMBLY

datron INSTRUMENTS 4200

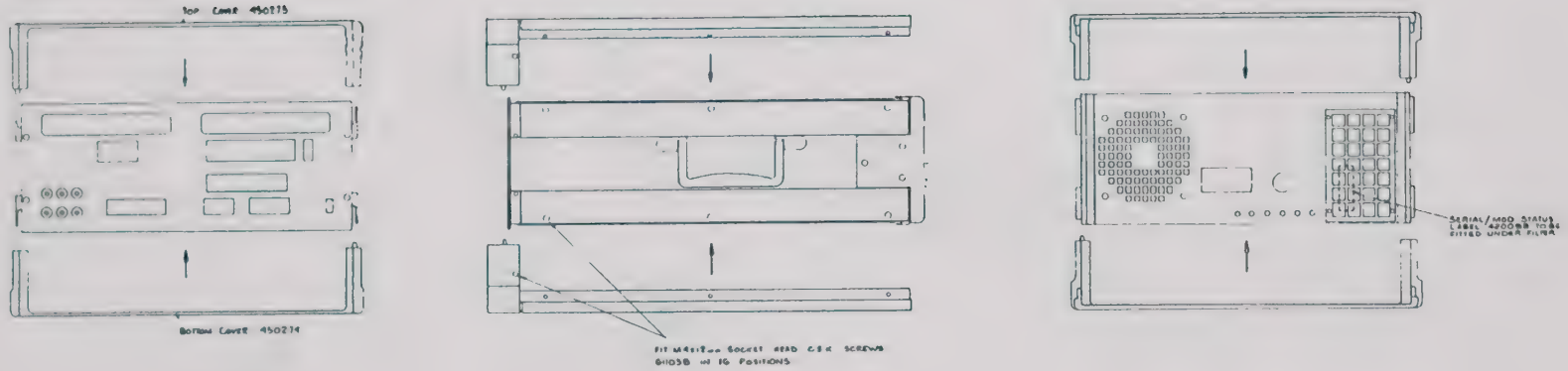
(10)



TOP EARTH/GUARD ASSY HAS PCB RETAINING BARS WHICH MUST BE CAREFULLY POSITIONED ON PC.B'S BEFORE INSERTING ANY FIXING SCREWS.

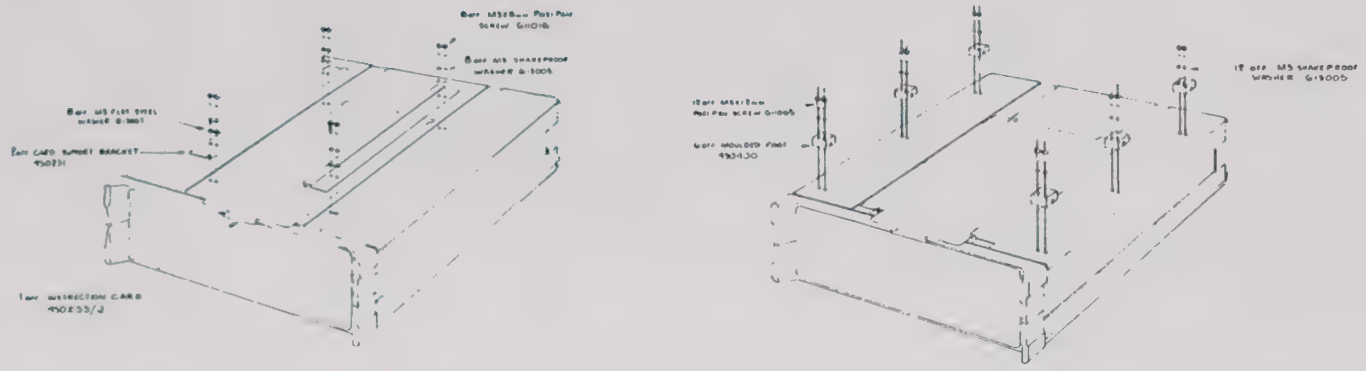

TOP EARTH GUARD ASSEMBLY.
FIT M4X8mm POZI-C'SK SCREWS G11058 IN 10 POSITIONS.
FIT M3X8mm SLOTTED-PAN SCREW G11076 IN SIX POSITIONS. MARKED *
M3X 12mm POZI-PAN SCREW G11005
M3 SHAKEPROOF WASHER G15005.

(11)



(12)

FIT INTO CAL & SERV HANDBOOK :-
1 off 920098 5A 1¼" ANTISURGE FUSE
1 off G50109 2.5mm A/F HEX KEY
2 off CAL SWITCH KEYS (FROM REAR PANEL ASSY)



MAIN ASSEMBLY

4200

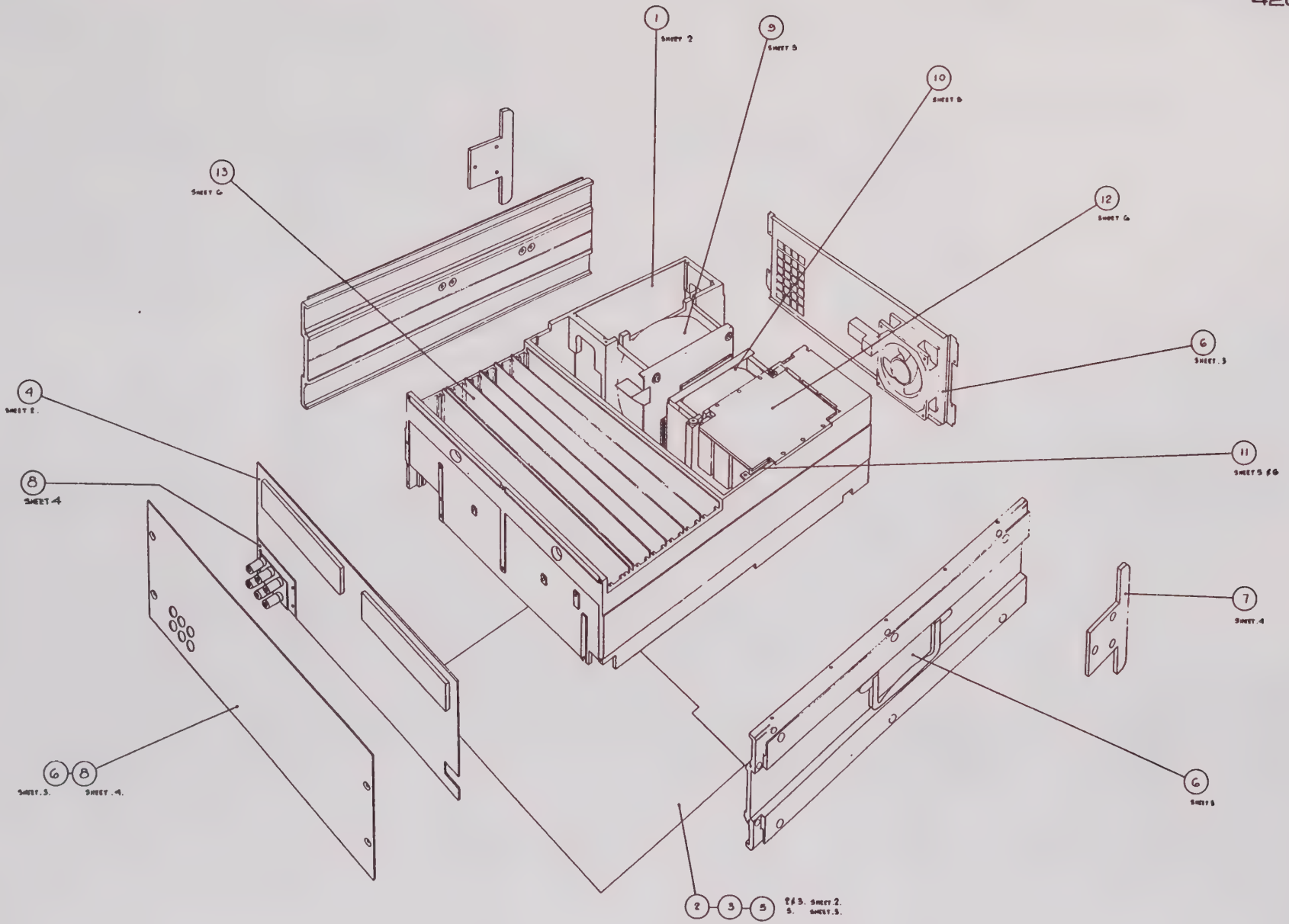
datron INSTRUMENTS

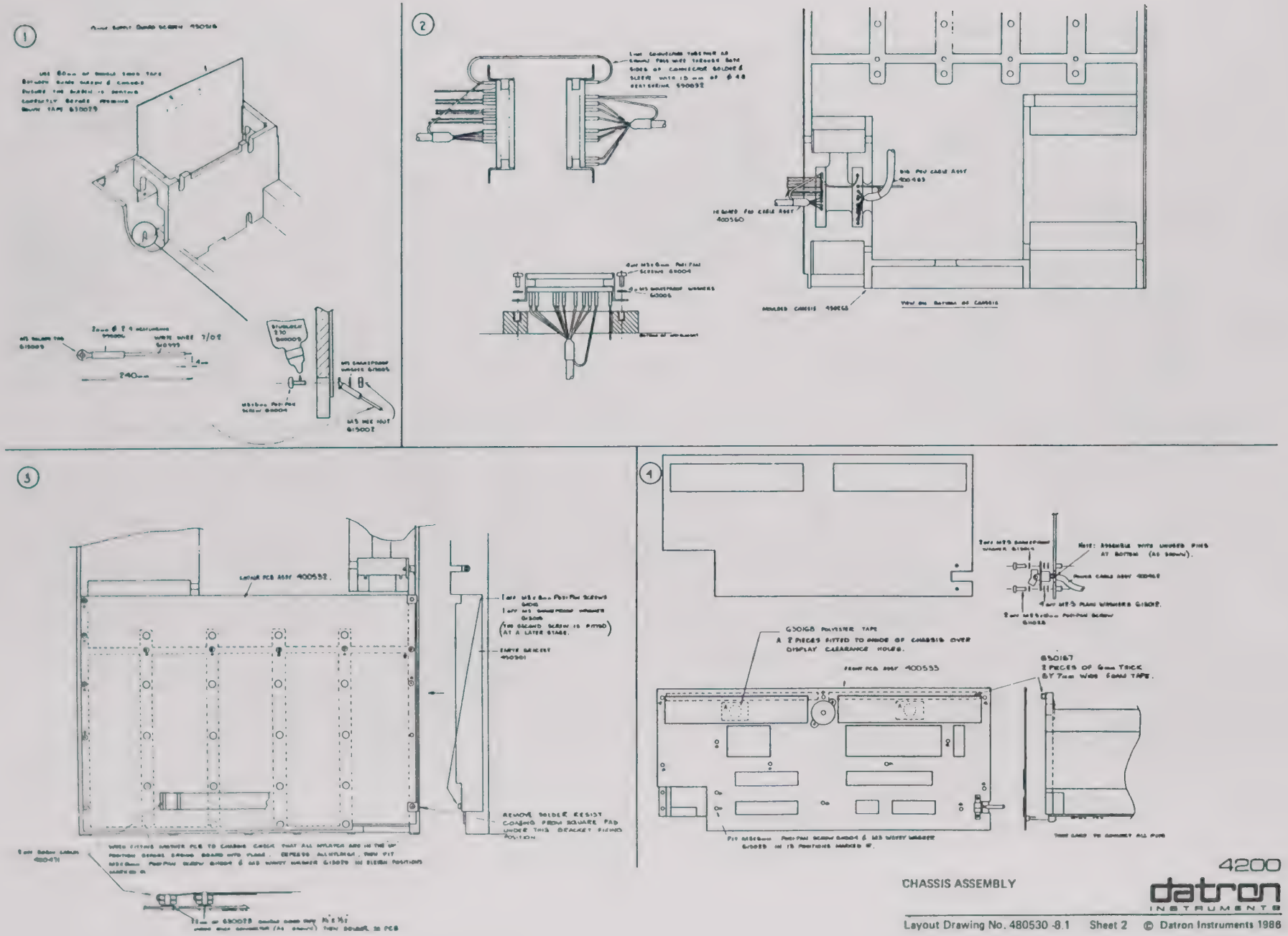
Layout Drawing No. 480529-6 1 Sheet 4 © Datron Instruments 1986

 © Datron Instruments 1986

datron INSTRUMENTS 4200

CHASSIS ASSEMBLY




1
2
3
4
240mm
14mm
M3 SHAKEPROOF WASHER 610004
M3 HEX NUT 615007
M3 PLAIN WASHER 610009
WHITE WIRE 7/0.2 600999
M3 x 6mm Pozi Pan Screws 610004
M3 SHAKEPROOF WASHERS 610006
M3 x 8mm Pozi Pan Screws 610004
M3 SHAKEPROOF WASHERS 610006
BIG PSU CABLE ASSY 400463
10 WAY FAN CABLE ASSY 400560
MOULDED CHASSIS 490658
VIEW ON BOTTOM OF CHASSIS
LATCH PCB ASSY 400532.
EARTH BRACKET 490301
REMOVE SOLDER RESIST COATING FROM SQUARE PAD UNDER THIS BRACKET FIXING POINT
WHEN FITTING LATCH PCB TO CHASSIS CHECK THAT ALL MYLARS ARE IN THE UP POSITION BEFORE PUSHING BOARD INTO PLACE. DEPRESS ALL MYLARS, PUSH FIT M3 x 8mm Pozi Pan SCREW 610004 & M3 SHAKEPROOF WASHER 610006 IN EIGHT POSITIONS MARKED ⊙
11mm or 650028 Double Sided Tape
FRONT PCB ASSY 400533
650168 POLYESTER TAPE
A 2 PIECES FITTED TO UNDER OF CHASSIS OVER DISPLAY CLEARANCE HOLES.
650167
2 PIECES OF 6mm THICK BY 7mm WIDE FOAM TAPE.
M3 x 8mm Pozi Pan SCREW 610004 & M3 SHAKEPROOF WASHER 610006 IN 15 POSITIONS MARKED ⊙.
Note: ASSEMBLE WITH UNUSED PINS AT BOTTOM (AS SHOWN).
POWER CABLE ASSY 400463
4 OFF M3 PLAIN WASHERS 610009.
2 OFF M3 x 20mm Pozi Pan SCREW 610008

CHASSIS ASSEMBLY

4200

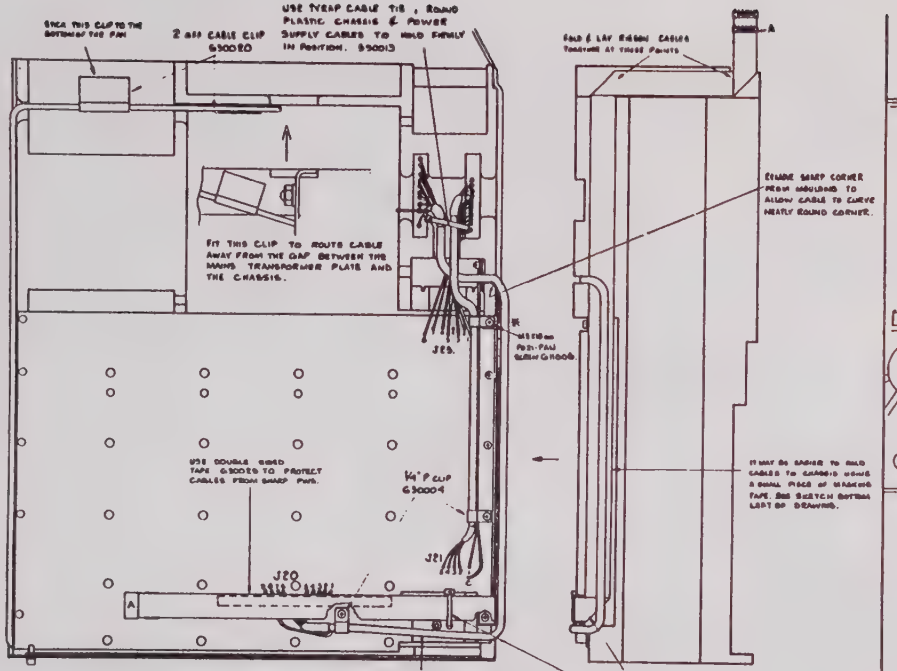
datron INSTRUMENTS

Layout Drawing No. 480530-8.1 Sheet 2 © Datron Instruments 1988

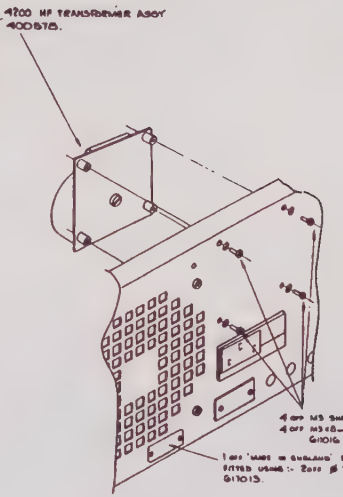
datron INSTRUMENTS 4200

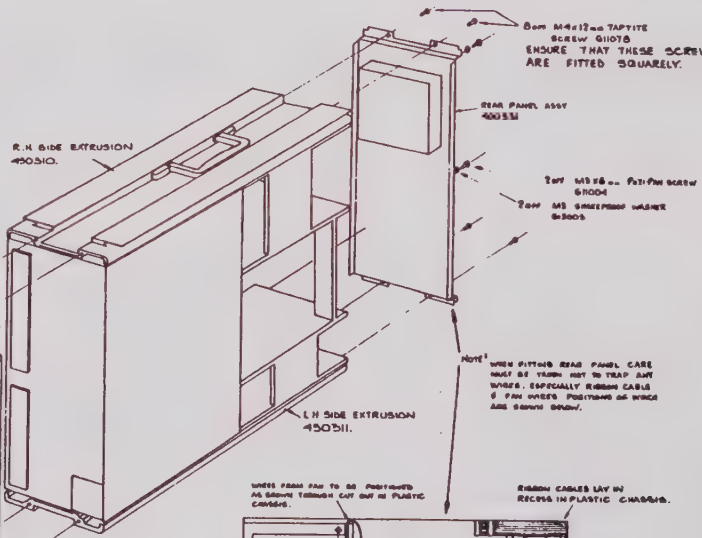
CHASSIS ASSEMBLY

(5)

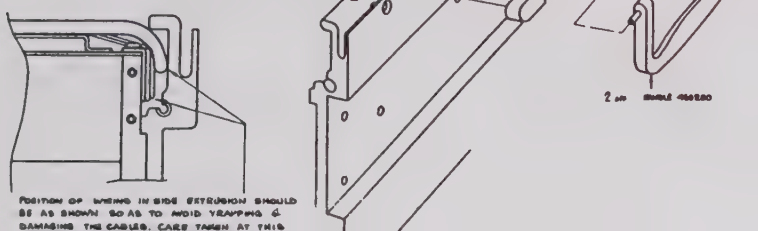

SNEA THIS CLIP TO THE BOTTOM OF THE PAN
2 off CABLE CLIP 630020
USE TYRAP CABLE TIE, ROUND PLASTIC CHASSIS & POWER SUPPLY CABLES TO HOLD FIRMLY IN POSITION. 630013
FIT THIS CLIP TO ROUTE CABLE AWAY FROM THE GAP BETWEEN THE MAINS TRANSFORMER PLATE AND THE CHASSIS.
FOLD & LAY RIBBON CABLES TOGETHER AT THESE POINTS
ENLARGE SHARP CORNER FROM MOULDING TO ALLOW CABLE TO CURVE NEATLY ROUND CORNER.
M3 x 8mm POZI-PAN SCREW G11008.
J23.
J22.
J21.
J20.
USE DOUBLE SIDED TAPE G30008 TO PROTECT CABLES FROM SHARP PWB.
¼" P CLIP 630004
IT MAY BE EASIER TO HOLD CABLES TO CHASSIS USING A SMALL PIECE OF MASKING TAPE. SEE SKETCH BOTTOM LEFT OF DRAWING.
FOLD & LAY RIBBON CABLES SEPARATELY AT THIS POINT
CABLE BRIDGE 450452. (DO NOT SECURE BRIDGE TO PCB YET)
USE TYRAP CABLE TIE 630013, ROUND CABLE BRIDGE & RIBBON CABLES (AS SHOWN)
M3 x 8mm POZI-PAN SCREW G11008.
M3 SHAKEPROOF WASHER G13005
M3 FLAT WASHER G13007
ALL WIRES AS ABOVE WRAP WIRES AROUND PIN & SOLDER.
EXCEPT 'P' CLIP IS USE A 10mm POZI-PAN SCREW G11008.
(7 off SMALL 3 off STEP 5, 2 off STEP 6, 2 off STEP 10)

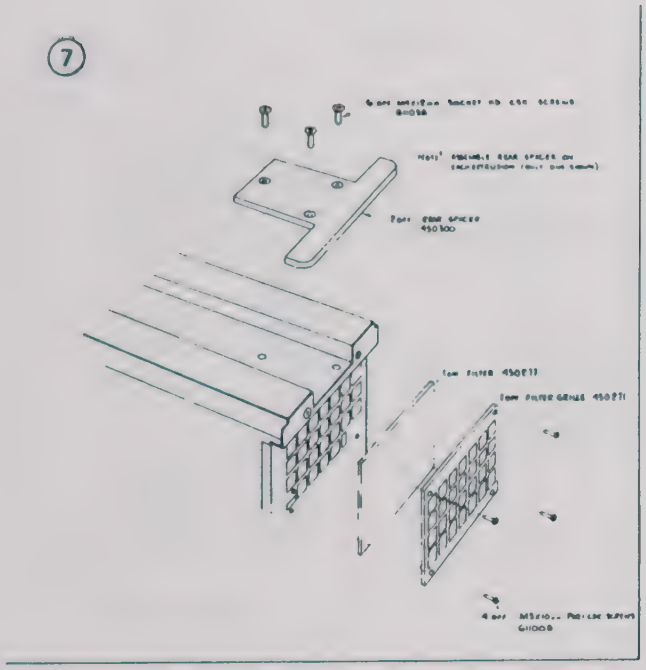
PIN No.	COLOUR	CABLE ASSY No.
J23-1	BLACK	400560
J23-2	RED	-
J23-3	ORANGE	-
J23-4	NO CONNECTION	-
J23-5	GREEN	400560
J23-6	BROWN	-
J22-1	VIOLET	-
J22-2	YELLOW	-
J21-1	WHITE	-
J21-2	GREEN	-
J21-3	ORANGE	-
J21-4	VIOLET	-
J20-A	YELLOW	-
FAN (-)	WHITE (RED) STRIP	-
	NOT FITTED	
J20-B	GRN/YEL	400383
J20-8	RED	-
J20-7	BLACK	-
J20-6	WHITE	-
J20-5	YELLOW	-
J20-4	VIOLET	-
J20-3	BROWN	-
J20-2	RED	-
J20-1	BROWN	-

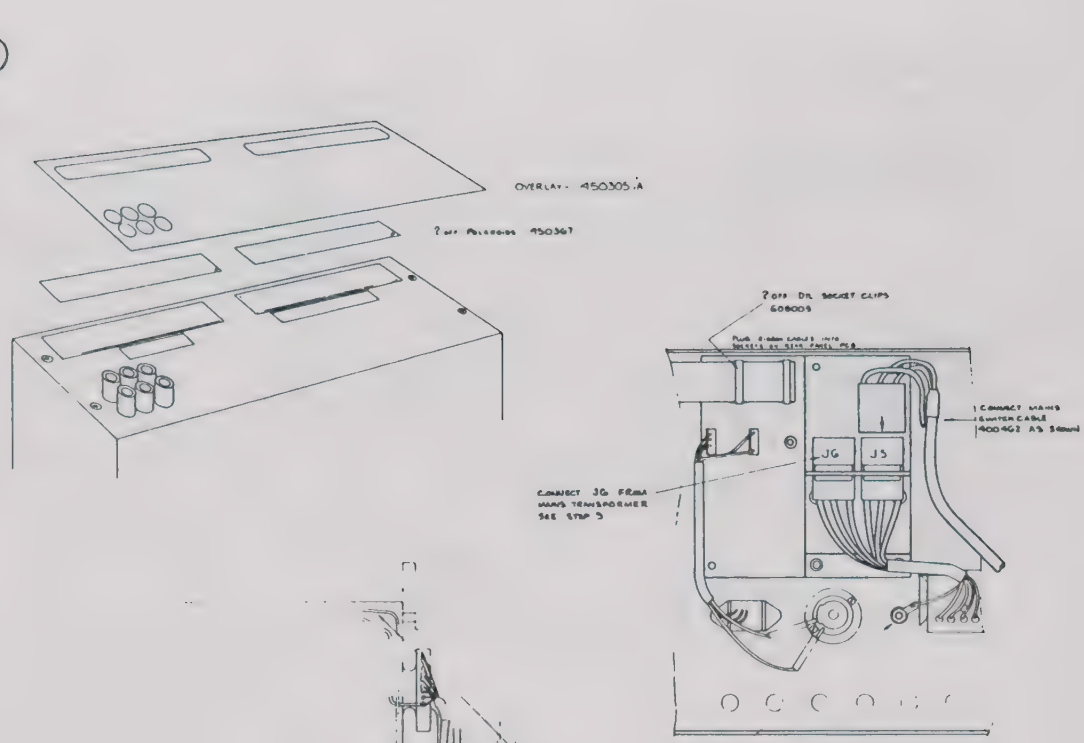

4200 HF TRANSFORMER ASSY 400878.
4 off M3 SHAKEPROOF G13005
4 off M3 x 8mm POZI PAN SCREW G11016
1 off 'LINE' IN SWITCH BOARD 450548 FITTED USING :- 2 off ø 2·4 POP RIVET G11013.

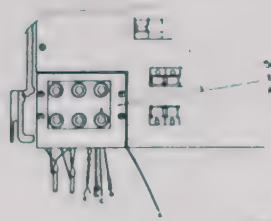

8mm M4 x 12mm TAPTITE SCREW G11078
ENSURE THAT THESE SCREWS ARE FITTED SQUARELY.
REAR PANEL ASSY 400511
R.H SIDE EXTRUSION 450510.
2 off M3 x 8mm POZI PAN SCREW G11004
2 off M3 SHAKEPROOF WASHER G13005
Note: WHEN FITTING REAR PANEL CARE MUST BE TAKEN NOT TO TRAP ANY WIRES, ESPECIALLY RIBBON CABLE & FAN WIRES. POSITIONS OF WIRES ARE SHOWN BELOW.
L.H SIDE EXTRUSION 450511.
FOAM GASKET 450487 STUCK TO FRONT PANEL ON INSIDE TO SEAL AGAINST FRONT PCB.
FRONT PANEL 450267
WIRES FROM FAN TO BE POSITIONED AS SHOWN THROUGH CUT OUT IN PLASTIC CHASSIS.
RIBBON CABLES LAY IN RECESS IN PLASTIC CHASSIS.

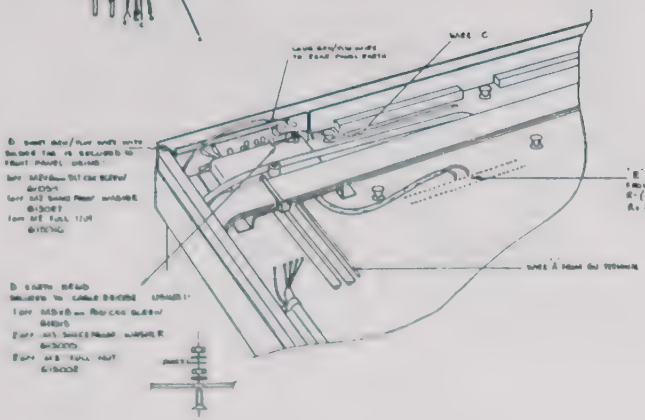
(6)

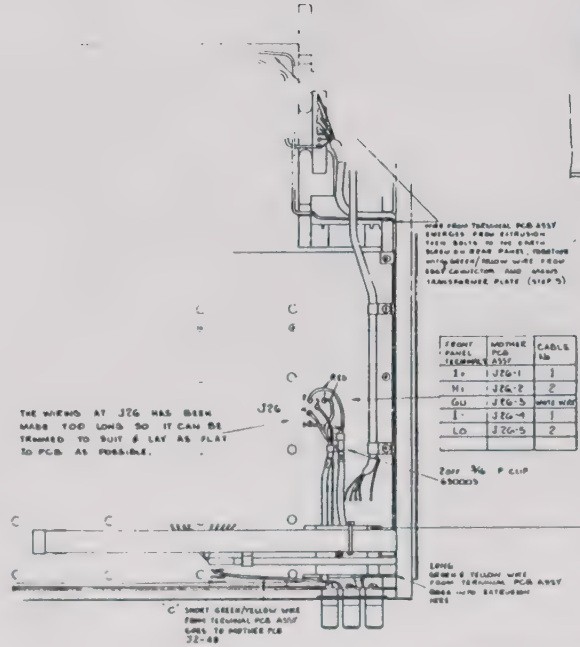

8mm M3 x 12mm POZI-CSK SCREW G11047
2 off SINGLE 450280
POSITION OF WIRING IN SIDE EXTRUSION SHOULD BE AS SHOWN SO AS TO AVOID TRAPPING & DAMAGING THE CABLES. CARE TAKEN AT THIS




8
OVERLAY - 450305.A
2 off Foldouts 450367
2 off DIL SOCKET CLIPS 608009
1 CONNECT MAINS & SWITCH CABLE 400462 AS Shown
CONNECT J6 FROM MAINS TRANSFORMER SEE STEP 5
J6
J5


SECURE TERMINAL PCB ASSY 400634 TO FRONT OF PLASTIC STRUCTURE POSITIONED AS SHOWN USING:-
4 off M3x6mm Pozi Pan Screw 610004
4 off M3 Shake Proof Washer 610018




WIRE FROM TERMINAL PCB ASSY EMERGES FROM EXTRUSION TWIN BOLTS TO THE EARTH BUSH ON REAR PANEL, TOGETHER WITH GREEN/YELLOW WIRE FROM FRONT CAPACITOR AND MAINS TRANSFORMER PLATE (STEP 5)
THE WIRING AT J26 HAS BEEN MADE TOO LONG SO IT CAN BE TRIMMED TO SUIT & LAY AS FLAT TO PCB AS POSSIBLE.
J26
2 off 3/16 P CLIP 610003
SECURE CABLE BRAND TO MOTHER PCB USE 2 off M3x6mm Pozi-Pan Screw 610004 2 off M3 Shake Proof Washer 610039
LONG GREEN & YELLOW WIRE FROM TERMINAL PCB ASSY BRAID WIRE BATTERY HERE

FRONT PANEL TERMINAL	MOTHER PCB ASSY	CABLE No
1o	J26-1	1
Hi	J26-2	2
GU	J26-3	WHITE WIRE
1·	J26-4	1
LO	J26-5	2

Note! IT IS IMPORTANT TO KEEP ALL WIRING ON MOTHER BOARD TO A MAXIMUM HEIGHT OF 8mm AFTER ASSEMBLY AN EASY CHECK IS TO PLACE THE BOTTOM GUARD SCREEN ON & THIS SCREEN SHOULD LAY ON THE STANDOFFS WITHOUT CRUSHING ANY WIRING (AS BELOW)

4200

CHASSIS ASSEMBLY

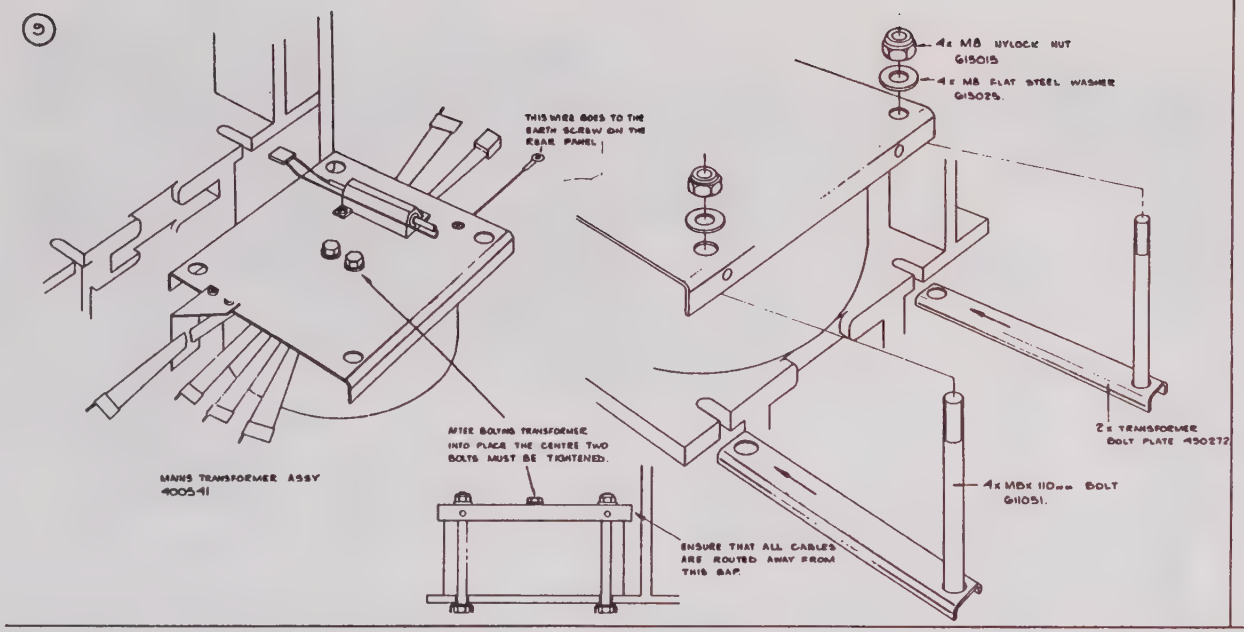
datron INSTRUMENTS

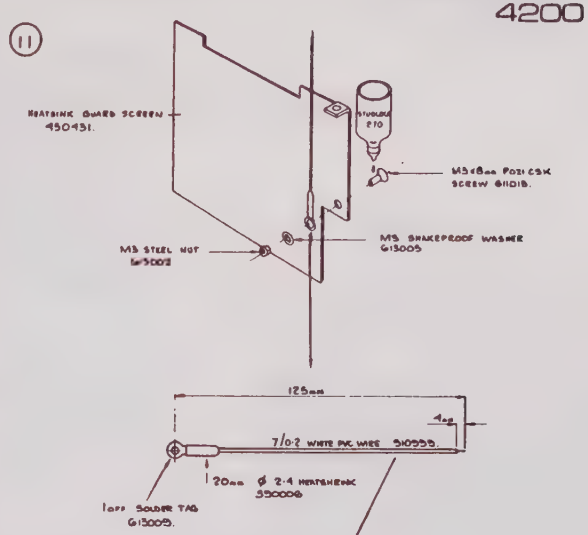
Layout Drawing No. 480530-8 3 Sheet 4 © Datron Instruments 1986

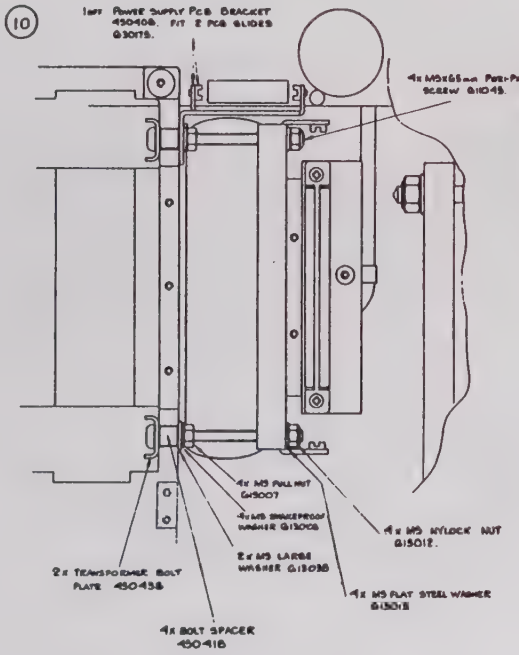
7 18-4

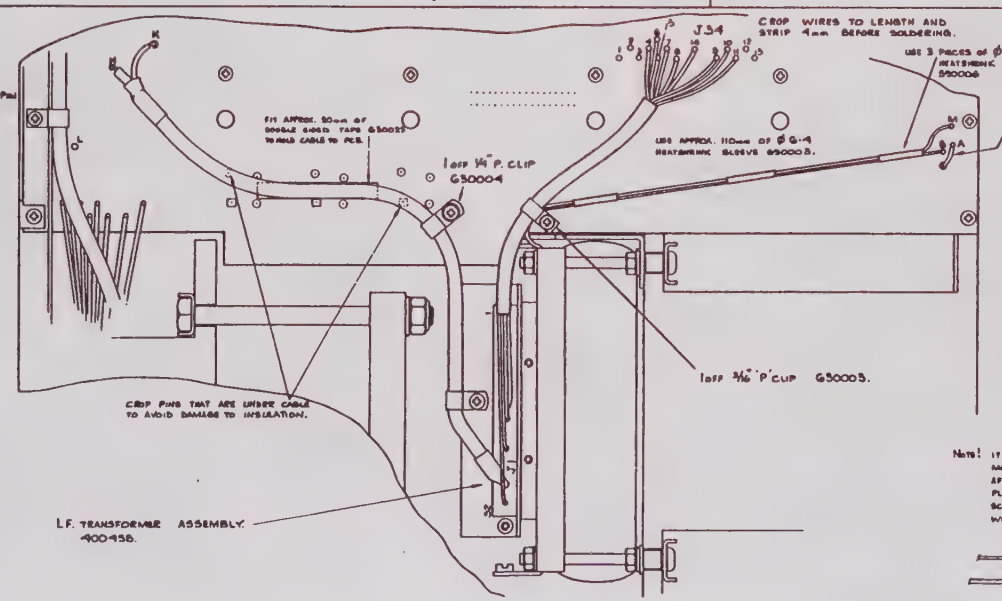
datron INSTRUMENTS 4200

CHASSIS ASSEMBLY


9
4x M8 NYLOCK NUT G15015
4x M8 FLAT STEEL WASHER G15025.
THIS WIRE GOES TO THE EARTH SCREW ON THE REAR PANEL.
MAINS TRANSFORMER ASSY 400541
AFTER BOLTING TRANSFORMER INTO PLACE THE CENTRE TWO BOLTS MUST BE TIGHTENED.
ENSURE THAT ALL CABLES ARE ROUTED AWAY FROM THIS GAP.
2x TRANSFORMER BOLT PLATE 450272
4x M8x 110mm BOLT G11051.



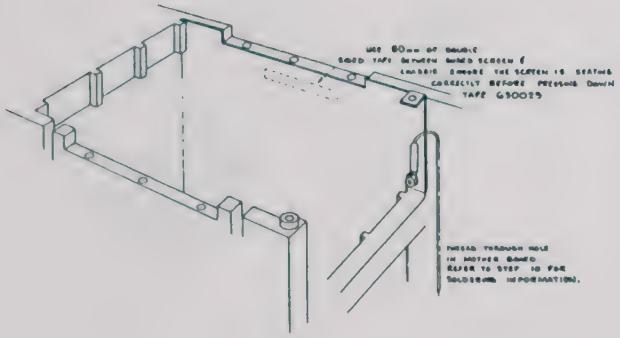

10
1off POWER SUPPLY PCB BRACKET 450404. FIT 2 PCB GLIDES G30178.
4x M3x6mm POZI-PAN SCREW G11045.
4x M3 FULL NUT G13007
4x M3 SHAKEPROOF WASHER G13005
2x M3 LARGE WASHER G13038
4x M3 NYLOCK NUT G15018.
4x M3 FLAT STEEL WASHER G15018
2x TRANSFORMER BOLT PLATE 450438
4x BOLT SPACER 450418


CROP WIRES TO LENGTH AND STRIP 4mm BEFORE SOLDERING.
J34
USE 3 PIECES of ø 2:4 HEATSHRINK 6mm 550006
FIT APPROX. 80mm OF DOUBLE SIDED TAPE G30027 TO HOLD CABLE TO PCB.
USE APPROX. 110mm OF ø 6:4 HEATSHRINK SLEEVE 550003.
1off 1/4" P. CLIP G30004
1off 3/16" P CLIP G30003.
CROP PINS THAT ARE UNDER CABLE TO AVOID DAMAGE TO INSULATION.
LF. TRANSFORMER ASSEMBLY 400458.

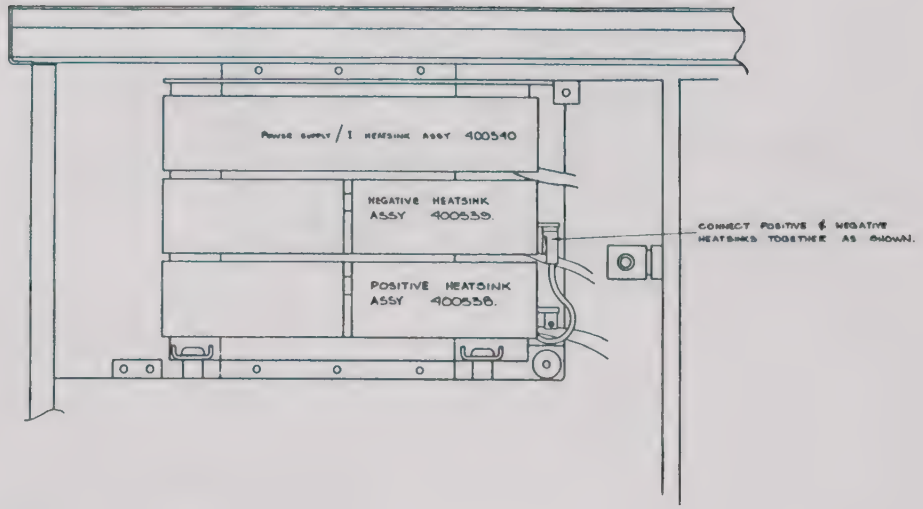
PIN Nº.	WIRE COLOUR.
J34-1	NOT CONNECTED
" 2	NOT CONNECTED
" 3	NOT CONNECTED
" 4	ORANGE
" 5	BROWN.
" 6	RED
" 7	RED / BLACK
" 8	BLACK
" 9	YELLOW
" 10	GREY
" 11	ORG / BLK.
" 12	NOT CONNECTED.
J34-13	NOT CONNECTED.
PW 4	NOT CONNECTED.
B	WHITE PVC FROM LF TX PLATE
M	WHITE PVC FROM PW 21-31.
A	WHITE PVC FROM SD SCREEN
J34-14	GREEN

Note! IT IS IMPORTANT TO KEEP ALL WIRING ON MOTHER BOARD TO A MAXIMUM HEIGHT OF 8mm. AFTER ASSEMBLY AN EASY CHECK IS TO PLACE THE BOTTOM GUARD SCREEN ON 6 THIS SCREEN SHOULD LAY ON THE STANDOFFS WITHOUT CRUSHING ANY WIRING. (AS BELOW)

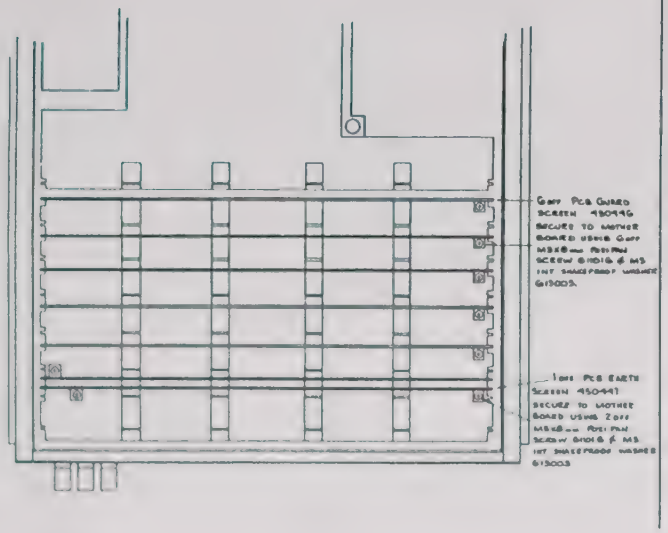
(11)

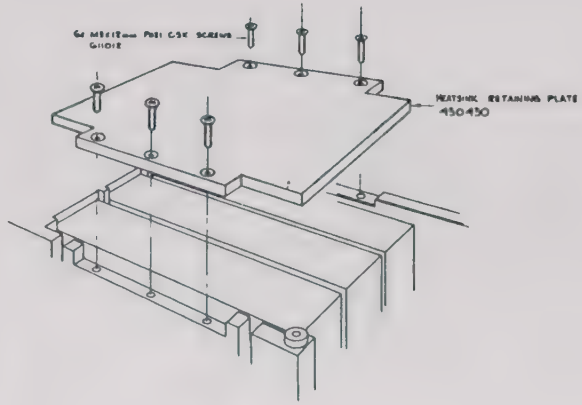


(12)



(13)





CHASSIS ASSEMBLY

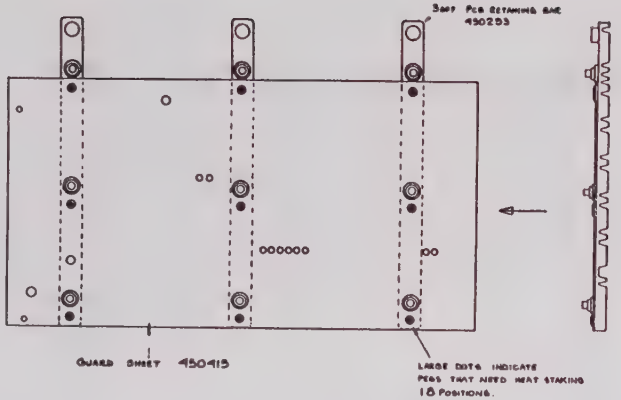
4200

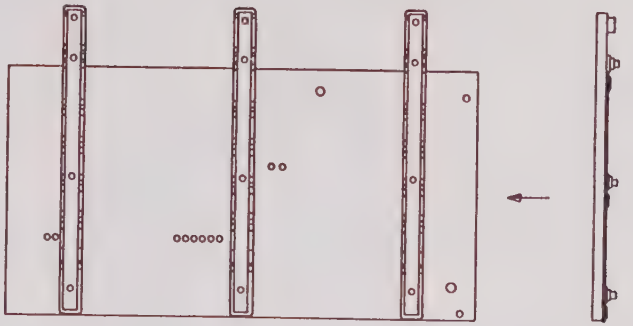
datron INSTRUMENTS

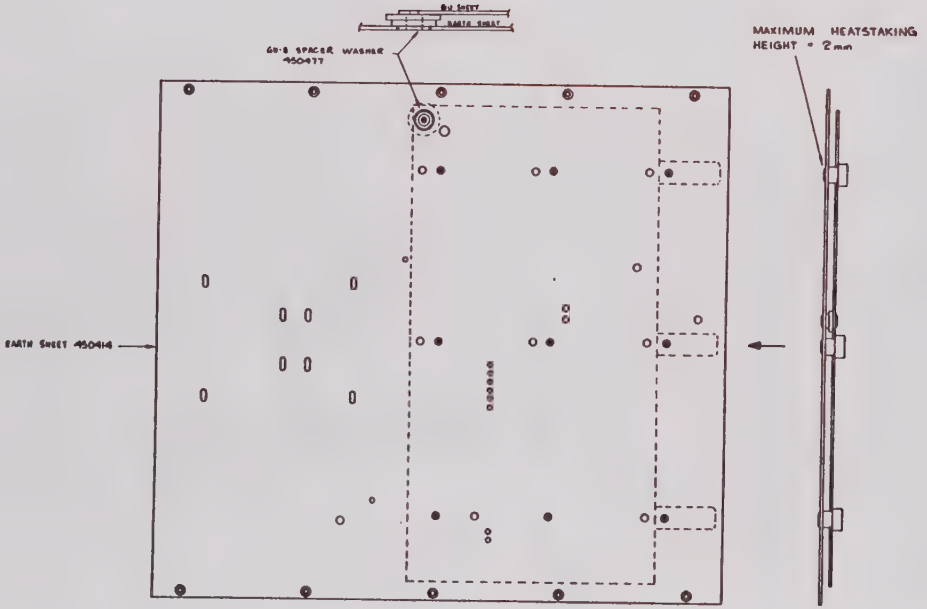
 © Datron Instruments 1986

(14)

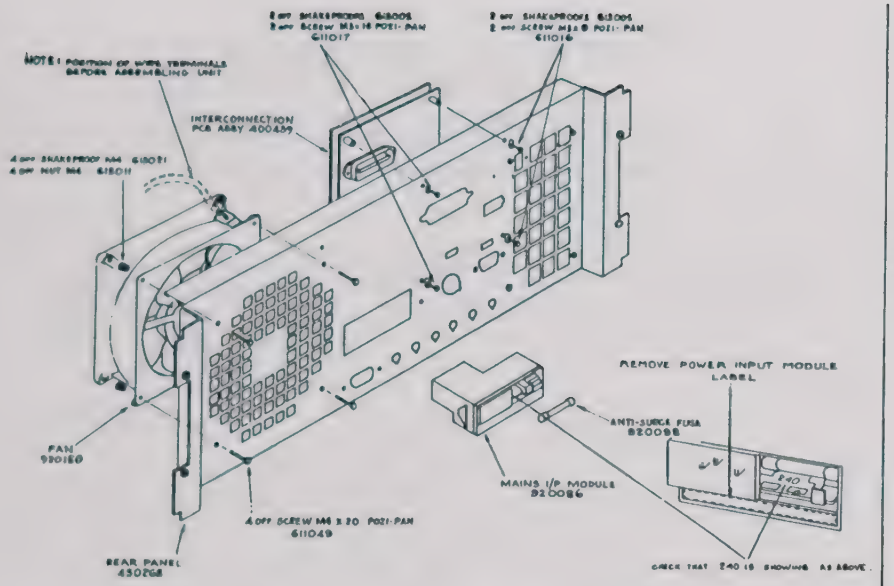
CHASSIS ASSEMBLY

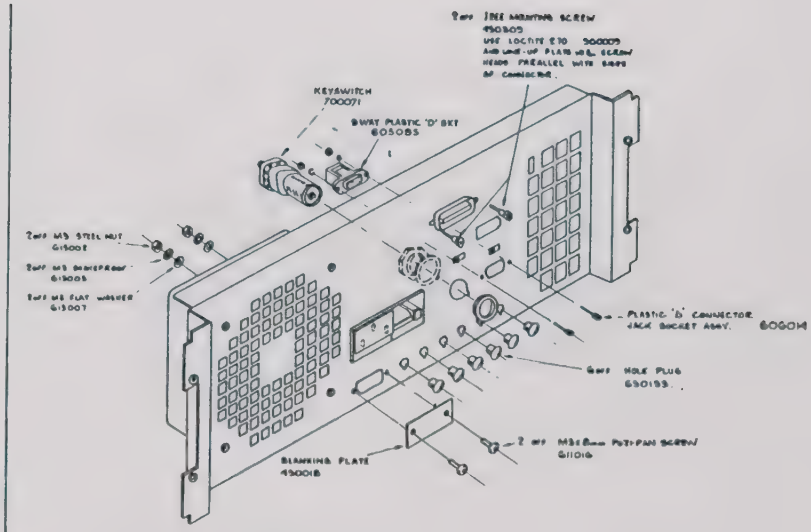






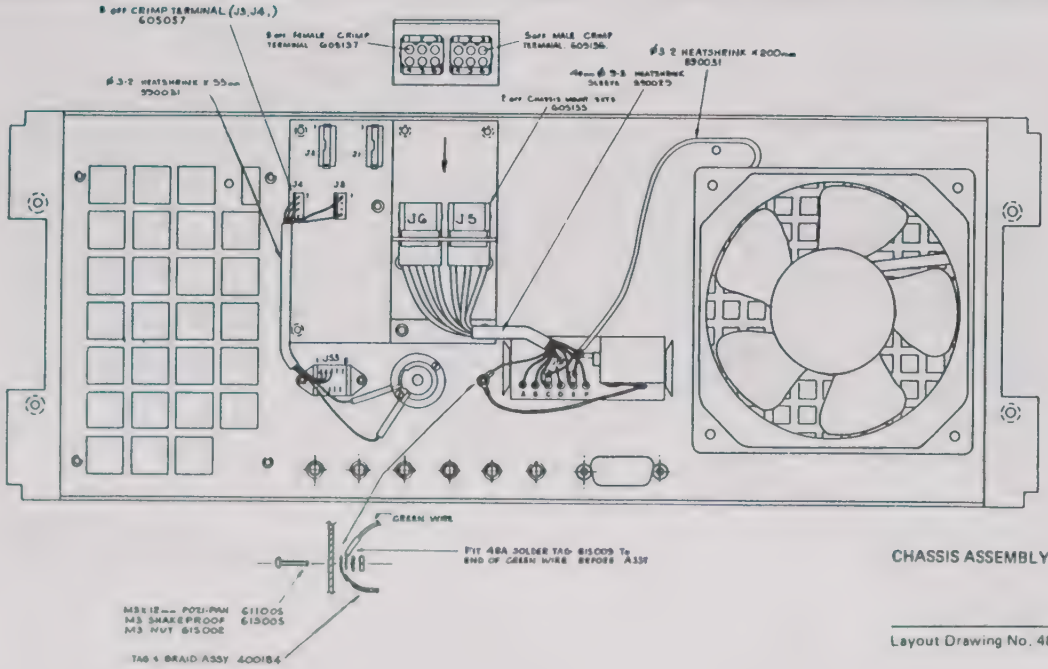
WHEN THE CHASSIS ASSY IS COMPLETE CHECK THAT THE TOP EARTH GUARD SHEET ASSEMBLY, BOTTOM GUARD & EARTH SHEETS FIT.


NOTE: POSITION OF WIRE TERMINALS BEFORE ASSEMBLING UNIT
INTERCONNECTION PCB ASSY 400439
FAN 920160
REAR PANEL 430268
REMOVE POWER INPUT MODULE LABEL
ANTI-SURGE FUSE 820098
MAINS I/P MODULE 820086
CHECK THAT F40 IS SHOWING AS ABOVE.


KEYSWITCH 700071
9WAY PLASTIC 'D' SKT 605085
PLASTIC 'D' CONNECTOR JACK SOCKET ASSY. 605OM
HOLE PLUG 650193
BLANKING PLATE 490018

CONNECTOR PIN (INTERCONNECTION PCB)	WIRE (COLOUR & LENGTH)	DESTINATION (REAR PANEL)	WIRE PART No
J6 PIN 1	VIOLET / 115mm	POWER INPUT MODULE PIN D	530777
2	WHITE / 110mm	PIN C	530999
3	BLACK / 100mm	PIN A	530000
4	N/C		
5	GREY / 170mm	PIN F	530888
6	ORANGE / 120mm	PIN E	530333
J5 PIN 1	GREEN / 130mm	to REAR PANEL	530555
2	RED / 120mm	POWER INPUT MODULE PIN J	530222
3	BLUE / 110mm	PIN N	530666
4	N/C		
5	YELLOW / 120mm	PIN B	530444
6	BROWN / 110mm	PIN L	530111
J6 PIN 1	BROWN 115	J33-1	510111
2	BLACK 115	J33-2	510000
3	RED 115	J33-3	510222
4			
J5 PIN 1	ORANGE 150	CAL SWITCH	510333
2			
3			
4	ORANGE 150	CAL SWITCH	510333
FAN B	ORANGE 250	POWER I/P MODULE PIN L	510333
FAN B	WHITE 250	PIN C	510999

* CONNECTS WIRES EITHER WAY ROUND


8 off CRIMP TERMINAL (J5,J6.) 605057
8 off FEMALE CRIMP TERMINAL 605137
5 off MALE CRIMP TERMINAL 605136
Ø3.2 HEATSHRINK x 200mm 890051
Ø3.2 HEATSHRINK x 55mm 890051
40mm Ø 9.5 HEATSHRINK SLEEVE 890025
2 off CRIMP WIRE SITE 605153
J6
J5
J33
GREEN WIRE
FIT 4BA SOLDER TAG 615009 To END OF GREEN WIRE BEFORE ASSY
M3x12mm POZI-PAN 611005
M3 SHAKEPROOF 613005
M3 NUT 615002
TAG & BRAID ASSY 400184

CRIMP CONNECTIONS.

605057, USE CRIMP TOOL HTR-2267-A
605136 & 137 USE CRIMP TOOL HTR-1051-E

NB ALL EXPOSED WIRE TERMINATIONS TO BE SLEEVED USED HALF PIECE OF SLEEVE:
550001 - 3mm
550005 - 6mm

CHASSIS ASSEMBLY

4200

datron INSTRUMENTS

Layout Drawing No. 480531-5.0 Sheet 1 © Datron Instruments 1986

OPTION FITTING INSTRUCTIONS
Option 30: Current

datron INSTRUMENTS 4200

THIRD ANGLE PROJECTION

DRAWN IN ACCORDANCE WITH BS 308

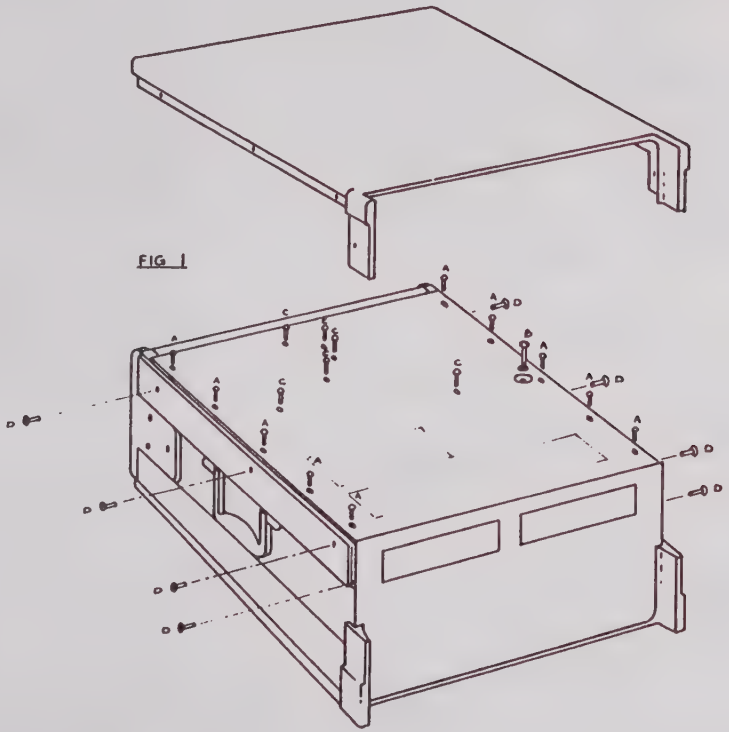
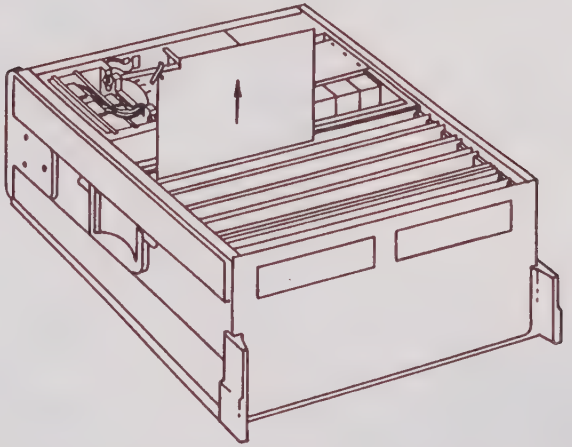
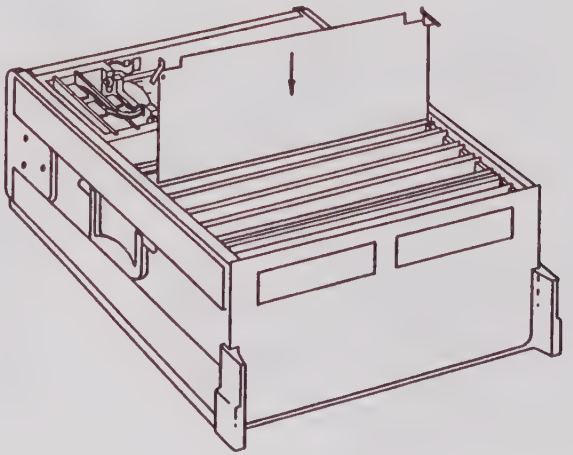


FIG 1



(2) THE GREY PLASTIC INNER CHASSIS DIVIDES THE INTERNAL SPACE INTO TWO AREAS. THE LAST POSITION IN THE FRONT SECTION CONTAINS A HALF WIDTH P.C.B. WHICH IS FITTED WHEN THE CURRENT OPTION IS NOT REQUIRED.

(3) REMOVE THE LINK P.C.B AND REPLACE IT WITH THE CURRENT OPTION BOARD 400555



OPTION 30 CURRENT.

PROCEDURE :-

(1) REMOVE THE 8 SCREWS WHICH SECURE THE LID IN POSITION, THEN LIFT THE LID OFF. THERE ARE 17 SCREWS TO REMOVE BEFORE THE GUARD SHIELD CAN BE TAKEN AWAY.

(4) REPLACE THE GUARD SHIELD AND REFIT ITS SCREWS IN THE POSITIONS SHOWN IN FIG 1

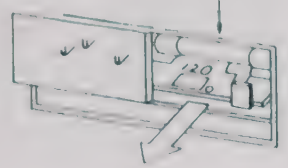
A 10 OFF M4×8mm POZI-CSK SCREWS G11088.
B 1 OFF M3×12mm POZI-PAN SCREWS G11005
C 6 OFF M3×6mm SLOTTED PAN HD SCREW G11076
USE M3 SHAKEPROOF WASHER ON SCREW 'B' ONLY.
POSITION LID & SECURE WITH :-
D 8 OFF M4×12mm SOCKET HD-CSK SCREW G11038

THIRD ANGLE PROJECTION
DRAWN IN ACCORDANCE WITH BS 308

OPTION 80 115V 60Hz. KIT OF PARTS 440096.

CHANGE MAINS FUSE TO:
BR0114 0·25A 250V 1¼" SLO-B FUSE.

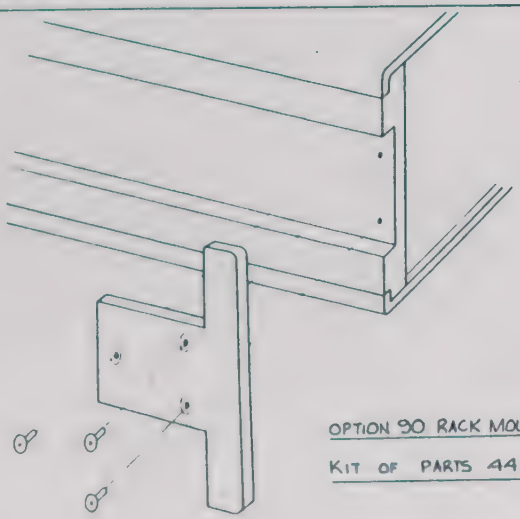
DETAIL FROM REAR PANEL



SLIDE PCB FORWARD AND REMOVE FROM MAINS FILTER, INSERT SO THAT 120 IS VISIBLE AS ABOVE.

PROCEDURE :-

1. CHANGE MAINS FUSE
2. CHANGE VOLTAGE P.C.B
3. ENSURE THAT CORRECT VOLTAGE AND FREQUENCY ARE STATED ON THE RATING LABEL
4. ON FINAL CHECK, USE THE INST. INC. CERTIFICATE OF QUALITY CONFORMANCE, FORM 93
5. REPLACE FUSE IN SERVICING MANUAL ACCESSORY WALLET WITH 0·25A 250V 1¼" SLO-B FUSE.



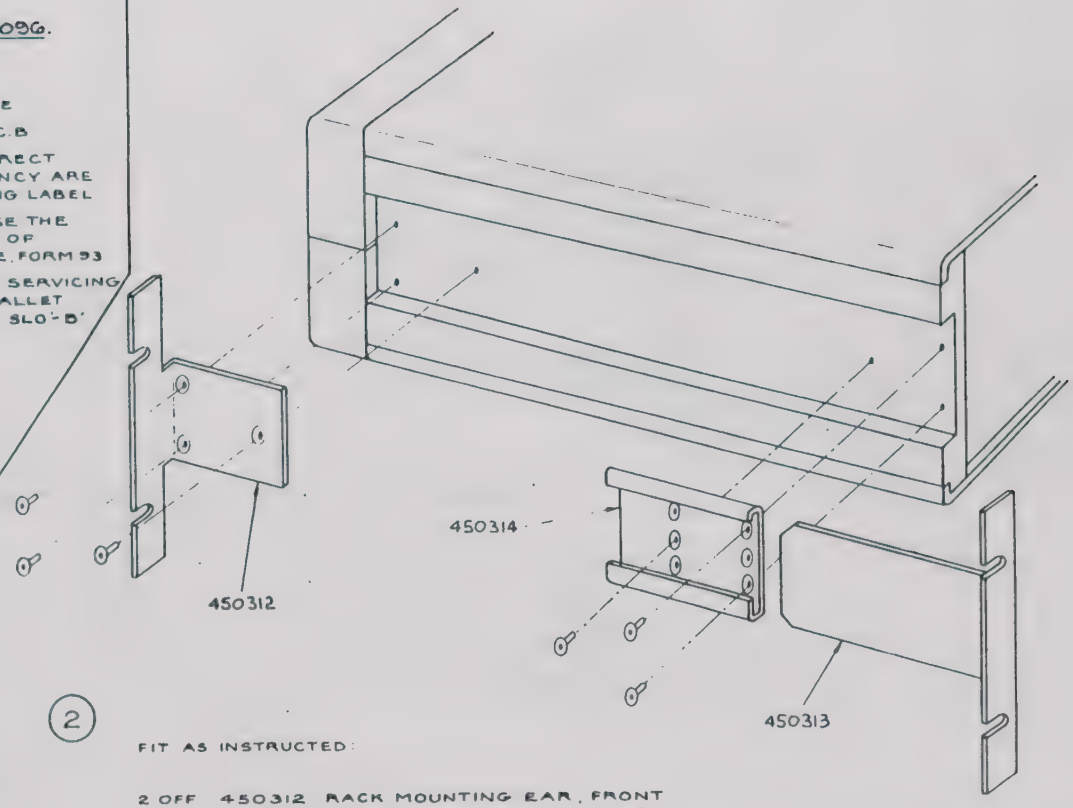
OPTION 90 RACK MOUNTING

KIT OF PARTS 440094

(1)

REMOVE :-

2 off	450300	REAR SPACERS.
6 off	611038	M4x12mm SOCKET H'D C'SK SCREWS.



(2)

FIT AS INSTRUCTED:

2 OFF	450312	RACK MOUNTING EAR, FRONT
2 OFF	450313	RACK MOUNTING EAR, REAR
2 OFF	450314	RACK MOUNTING SLIDE
12 OFF	611062	M4x8mm SOCKET H'D C'SK SCREWS

SUITABLE RACK DEPTHS

DEPTH mm.	DEPTH INCHES	NOTES
<635	<25	SHORTEN REAR RACK MOUNTING EARS.
635 TO 735	25 TO 29	FIT AS SHOWN BY DRAWING.
735 TO 800	29 TO 31½	REVERSE RACK MOUNTING SLIDES TO EXTEND PAST REAR PANEL.

OPTION FITTING INSTRUCTIONS
Option 80: 115V 60Hz
Option 90: Rack Mounting

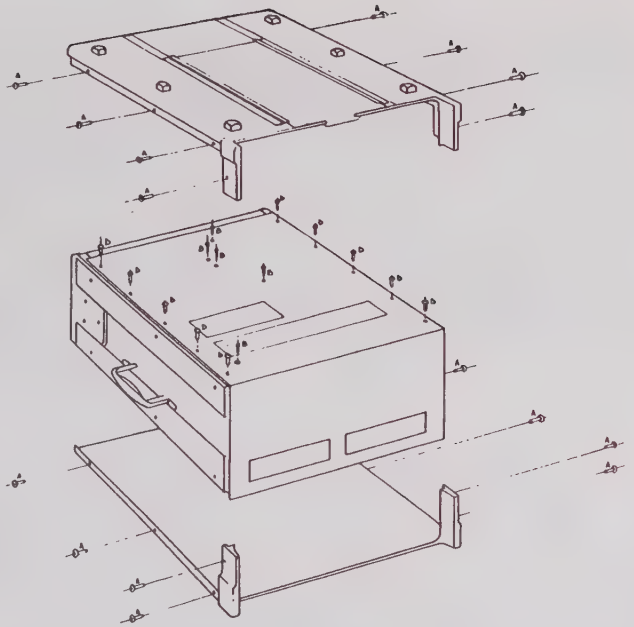
4200

datron INSTRUMENTS

Layout Drawing No. 480603-3.0 Sheet 2 © Datron Instruments 1986

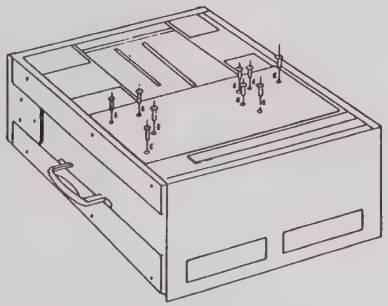
OPTION FITTING INSTRUCTIONS
Option 42: Rear Output

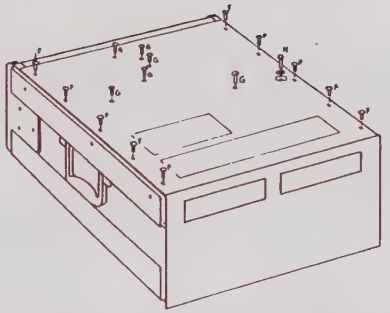
datron INSTRUMENTS 420C



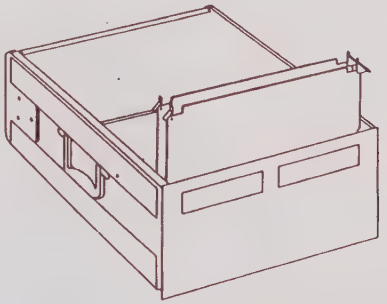
REMOVE TOP & BOTTOM COVERS BY REMOVING :-
'A' 10 off M4 x 12mm SKT HD CSK SCREWS G11030.

REMOVE BOTTOM EARTH SHEET & THEN BOTTOM GUARD SHEET. REMOVE FOLLOWING SCREWS.
'B' 5 off M3 x 6mm SLOTTED-PAN HD SCREWS. G11107G
'D' 10 off M4 x 8mm POZI-CSK SCREWS G11058
'E' 5 off M3 x 6mm POZI-CSK SCREWS G11007.

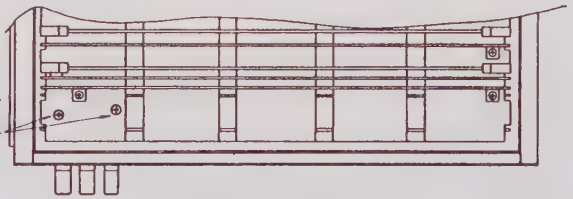




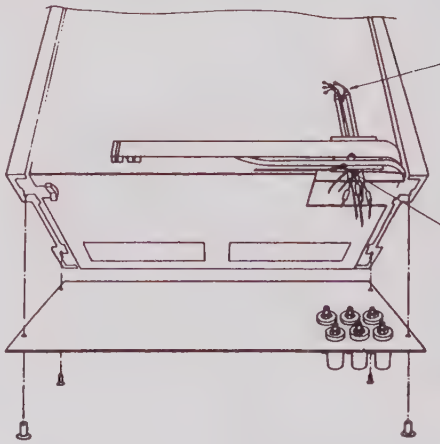
REMOVE TOP EARTH SHEET ASSEMBLY BY UNDOING :-
'F' 10 off M4 x 8mm POZI-CSK SCREWS G11058.
'G' 6 off M3 x 6mm SLOTTED-PAN HD SCREWS G11107G
'H' 1 off M3 x 12mm POZI-PAN SCREW G11005
1 off M3 SHAKEPROOF WASHER G13005.
ON SCREW 'H' ONLY.



REMOVE FRONT TWO CIRCUIT BOARDS WITH BLACK & BROWN EJECTORS.

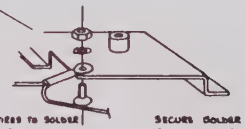


REMOVE THESE TWO SCREWS :-
M3 x 8mm POZI-PAN G11016 &
M3 WAVEY WASHERS G13013



WITH CALIBRATOR UPSIDE-DOWN FACING FORWARD UNSOLDER THE CABLES GOING FROM TERMINALS TO THE CLOVERLEAVES ON THE MOTHER PCB. ALSO REMOVE THE 2 P'CLIPS & FIXING SCREWS.
REMOVE THE FRONT PANEL FIXING SCREWS.
UNSOLDER CABLES FROM TERMINALS.
REMOVE CABLES & TERMINALS.
GREEN/YELLOW WIRES FROM MOTHER PCB & REAR PANEL EARTH CONNECTION (WHICH GOES INTO SIDE EXTRUSION) MUST BE SOLDERED TO A SOLDER TAG & SECURED TO THE CABLE BRIDGE AS SHOWN BELOW.

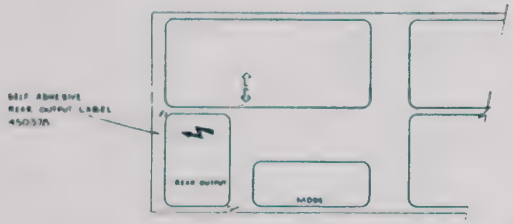
REPLACE FRONT PANEL, THE CABLE BRIDGE & FRONT TWO CIRCUIT BOARDS.



SOLDER WIRES TO SOLDER TAG G13008.
SLEEVE WITH 20mm OF Ø 2·4 HEATSHRINK 890006.

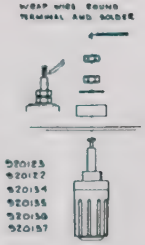
SECURE SOLDER TAG TO CABLE BRIDGE USING :-
1 off M3 x 6mm POZI-CSK SCREW G11007.
1 off M3 SHAKEPROOF WASHER G13005.
1 off M3 FULL NUT. G13002.

STICK ADHESIVE LABEL 450378 ON TO FRONT PANEL OVERLAY AS INDICATED BELOW:

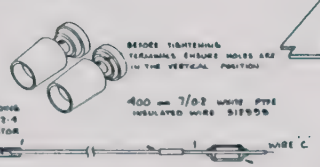


LINE UP BORDER LINES OF LABEL WITH LINES ON OVERLAY.

WRAP WIRE ROUND TERMINAL AND SOLDER



RED	920123
BLACK	920127
BROWN	920134
BLUE	920135
WHITE	920130
GREEN	920137

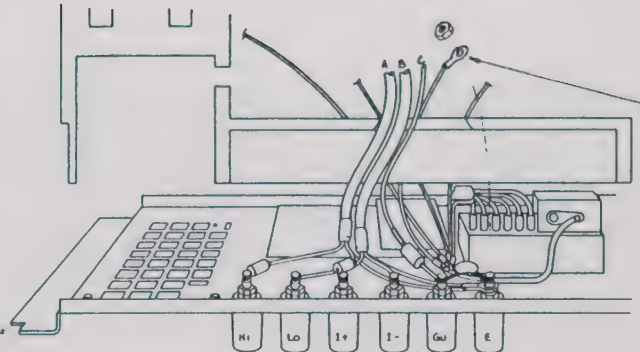


USE 10mm OF Ø7.4 HEATSHRINK 590006 TO STOP FERRITE BEAD SLIDING. BROWN WIRE 26mm Ø 2.4 HEATSHRINK OVER RESISTOR

400 mm 7/0.2 WHITE PTFE INSULATED WIRE 515959

WIRE 'C'

220R 5% 7W CARBON RESISTOR 000721



TERMINAL COLOUR	RED	BLACK	BROWN	BLUE	WHITE	GREEN
2m CABLE 400605	A	A	B	B	C	EARTH
WIRE COLOUR	RED	BLUE	RED	BLUE	WHITE (BROWN/YELLOW FROM REAR PANEL SCREENS OF A & B (5 CONNECTIONS))	

SOLDER 220pF, 2KV CAPACITOR 104032 BETWEEN GUARD & EARTH TERMINALS
SLEEVE LEADS WITH PTFE 590004

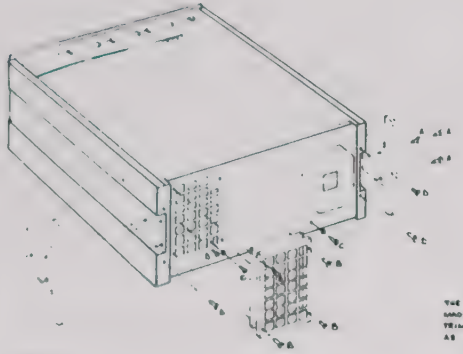
HEATSHRINK 20mm OF Ø 4.8 HEATSHRINK SLEEVE 590032 TO 3OFF FERRITE BEADS 920169 & ASSEMBLE TO WIRES AS SHOWN ON WIRES FROM HI, I+ & GU TERMINALS.

1OFF M3 SOLDER TAG 615009

20mm HEATSHRINK Ø 2.4 590006

150mm 15/0.2 GREEN/YELLOW WIRE 531006

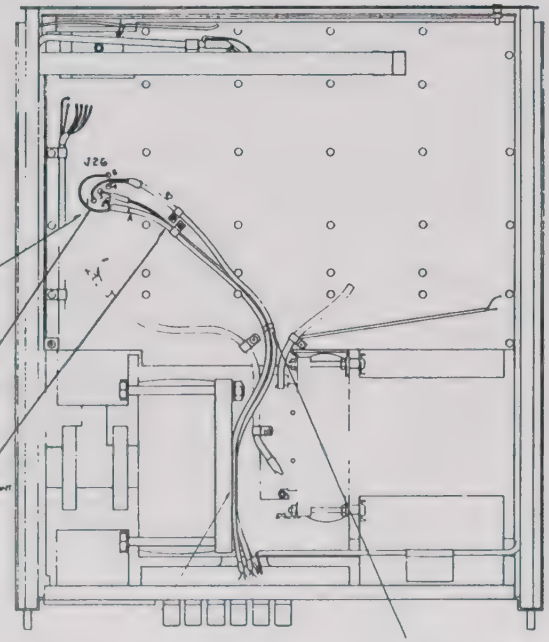
1OFF M4 SOLDER TAG 615024



REMOVE:

A	6 OFF	M4 x 12mm CSK SOCKET HD SCREWS	611036
	2 OFF	REAR SPACERS	480300
B	4 OFF	M3 x 10mm POZI CSK SCREWS	611008
	1 OFF	FILTER GRILLE	450271
	1 OFF	FILTER	450277
C	2 OFF	M3 x 6mm POZI PAN SCREWS	611004
	2 OFF	M3 SHAKEPROOF WASHER	615005
D	4 OFF	M4 x 8mm TAPTITE POZI CSK SCREWS	611048

EASE REAR PANEL FORWARD. DISCONNECT CABLES FROM INTERCONNECTION PCB



REAR PANEL TERMINALS	MOTHER PCB ASSY
I+	1
HI	2
O	3
I-	4
LO	5

THE WIRING AT J26 HAS BEEN MADE TOO LONG SO IT CAN BE TRIMMED TO SUIT & LAY AS FLAT AS POSSIBLE

2OFF 3/16" P CLIPS & FIXING SCREWS. THESE ARE RE-USED FROM FRONT OUTPUT CABLES.

2OFF ADHESIVE CABLE CLIPS G30020 TO HOLD CABLES A,B & C TO TRANSFORMER PLATE.

USE LACING CORD 590007 TO HOLD CABLES TOGETHER.

WHEN THE REAR PANEL IS AWAY FROM THE CHASSIS REMOVE THE PUSH OUT PLUGS WHICH BLANK THE TERMINAL HOLES AND REFIT THE TERMINALS FROM THE FRONT PANEL.

CONNECT REAR OUTPUT CABLES

FIT 150mm EARTH WIRE (SHOWN ABOVE) TO EARTH SCREW ON REAR PANEL 'M3' SOLDER TAG END. PASS EARTH WIRE AROUND THE BACK OF, AND THEN INTO THE RECESS IN THE CHASSIS & CONNECT THE M4 SOLDER TAG OF EARTH WIRE TO THE EARTH TERMINAL.

SOLDER THE 220pF 2KV CAPACITOR 104032 BETWEEN GUARD & EARTH TERMINALS

RECONNECT CABLES TO INTERCONNECTION PCB.

EASE REAR PANEL BACK INTO PLACE

REFIT REAR PANEL AS SHOWN IN PREVIOUS STEP.

SECURE CABLES A,B & C WITH CABLE CLIPS & 'P' CLIPS. ASSEMBLE RESISTOR TO CABLE 'C' & SOLDER TO CLOVERLEAF. FIT CABLES A & B THEN SOLDER TO CLOVERLEAF TERMINALS.

FINALLY REPLACE GUARD SHIELDS & COVERS AS SHOWN IN PREVIOUS STEPS.

4200

OPTION FITTING INSTRUCTIONS
Option 42: Rear Output

datron INSTRUMENTS

 © Datron Instruments 1986

WAVETEK

Wavetek Calibration Division Sales and Service Representatives Worldwide

ARGENTINA
Reycom Electronica SA
B de Irigoyen 972 2DO Piso C,
1304 Buenos Aires
Tel: 54 1304 2018
Telex: -----
Fax: 54 1304 2010

AUSTRALIA
Scientific Devices Pty. Ltd
PO Box 63, 2 Jacks Road,
South Oakleigh, Victoria 3167
Tel: 61 3 579 3622
Telex: AA32724
Fax: 61 3 579 0971

AUSTRIA
Walter Rekirsch, und Co.
Vertriebs KG, Obachgasse 28, 1220 Wien
Tel: 43 1 259 7270
Telex: -----
Fax: 43 1 259 7275

BELGIUM
Air-Parts International B. V.
Avenue Huart-Hamoirlaan 1,
Box 34, 1030 Bruxelles
Tel: 32 2 241 6460
Telex: -----
Fax: 32 2 241 8130

BOLIVIA
Electronic Marconi SRL
Colle Yanacocha 337,
Cajon Postal 143, La Paz
Tel: 591 2 352 574
Telex: -----
Fax: 591 2 314 540

BRAZIL
Sistronics Instrumentacao
E Sistemas LTDA
Av. Adolfo Pinheiro 1000-9 And
CEP 04734-002, Sao Paulo - SP
Tel: 55 11 247 5588
Fax: 55 11 528 8457

CHILE
Avantec Ltda
PO Box 1087
Fidel Oteiza 1921 - Of. 1106
Providencia - Santiago
Tel: 56 2 341 1021
Telex: -----
Fax: 56 2 341 1020

CHINA
Wavetek Corporation;
Beijing Representative Office.
27/F Room GH, CITIC Building,
19 Jianguomenwai Dajie,
Beijing 100004
Tel: 8610 500 2255 Ext. 2768
Telex: -----
Fax: 8610 500 8199

CHINA (Service Only)
Tianjin Zhong Huan
Scientific Instruments Corp.
No. 59 Zhao Jia Chang Street,
Hong Qiao Section, Tianjin
Tel: 753732
Telex: -----
Fax: 22 252 625

DENMARK
Instrutek-Periferi A/S,
Christiansholmsgade
8700 Horsens
Tel: 45 75 611 100
Telex: -----
Fax: 45 75 615 658

EASTERN EUROPE
Wavetek GmbH
A-1020 Wien, Pharos Haus,
Nordbahnstraße 36, Top 1.4,
Austria
Tel: 43 1 214 51 10
Telex: ---
Fax: 43 1 214 51 09

EGYPT & MIDDLE EAST
Computek Test & Measurement
Instruments Division
23, Amer Street, Dokki,
Giza, Cairo.
Tel: 202 700501
Telex: -----
Fax: 202 349 8638

FINLAND
Finn Metric OY
Scandia Metric Group
PO Box 4, Riihitonuntie 2
FIN-02201 Espoo
Tel: 358 0 423 911
Telex: -----
Fax: 358 0 426 967

FRANCE
M. B. Electronique
606 Rue Fourny-BP31, Z.I. de Buc,
78533 BUC CEDEX
Tel: 33 1 39 56 81 31
Telex: 842 695414
Fax: 33 1 39 56 53 44

GERMANY
WAVETEK GmbH
Gutenbergstraße 2-4,
D-85737 Ismaning
Tel: 49-89-99641-0
Fax: 49-89-99641-160

GREECE
American Technical
Enterprises SA
PO Box 3156
Agiou Konstantinou 39,
Athens 10210.
Tel: 30 1 524 0620
30 1 524 0740
Telex: 863 216046 ATE GR
Fax: 30 1 524 9995

HONG KONG
Wavetek Asia Pacific Sales Office
Room 3A, HKPC Building,
78 Tat Chee Avenue,
Kowloon, Hong Kong
Tel: 852 788 6221
Telex: -----
Fax: 852 788 6220

HONG KONG
Euro Tech (Far East) Ltd
18/F., Gee Chang Hong Centre,
65 Wong Chuk Hang Road,
Hong Kong
Tel: 852 814 0311
Telex: 780 72449 EFELD HX
Fax: 852 873 5974

INDIA
Technical Trade Links
- Deodahar Centre,
424 Marol Maroshi Road,
Andheri (East), Bombay 400 059
Tel: 91 22 832 2412
91 22 834 2204
Telex: 011 95379261 TTLIN
Fax: 91 22 837 6719

- Flat B, 2nd Floor, Ashoka Centre, 4E/15,
Jhandewalan Extn.,
New Delhi - 110 055
Tel: 91 11 752 7277
Telex: 953 031 61614 APLB IN
Fax: 91 11 752 6036

INDONESIA
C. V. Schmidt Mitra Indonesia
Delta Bldg., Block A, No. 30,
JL Suryo Pranoto No 1-9,
Jakarta 10160.
Tel: 62 21 380 7845
Telex: 796 46729 SCHMIDIA
Fax: 62 21 380 7847

IRELAND
Euro Electronic Systems
Unit 1, Sandyford Park,
Sandyford Ind. Est., Dublin 18.
Tel: 353 12 952 326
Telex: -----
Fax: 353 12 952 246

ISRAEL
DAN-EL Technologies Ltd.
PO Box 13144, Office 60,
Tel-Aviv 61131.
Tel: 972 3 647 8770
Telex: 342105
Fax: 972 3 647 8771

ITALY
DELO Instruments
Via Piemonte 14
20090 Fizzonasco Pieve E,
Milano
Tel: 39 2 907 22441
Telex: -----
Fax: 39 2 907 22742

JAPAN
Yokogawa Electric Corporation
Kofu General Business Division
155 Takamuro-Cho
Kofu-Shi, Yamanashi-Ken 400
Tel: 0552 43 0332
Telex: -----
Fax: 0552 43 0399

KOREA
Myoung Corporation
Yeo Eui Do, PO Box 14, Seoul
Tel: 82 2 784 9942
Telex: K 24283 MYOUNG
Fax: 82 2 784 2387

MALAYSIA
Schmidt Scientific SDN BHD
13th Floor, Wisma Mirama,
Jalan Wisma Putra,
P. O. Box 10592,
50718 Kuala Lumpur.
Tel: 60 3 242 7122
Telex: 30035 SCHMID MA
Fax: 60 3 248 5143

MEXICO
Mexitex, S.A.
Porfirio Diaz 53, Col. Del Valle,
APDO, Postal 12-1012
Mexico, D.F. 03100
Tel: 525 575 9929
525 575 0312
525 575 0269
Telex: 177 3239 MEXIME
Fax: 525 575 9981

MOROCCO
Minhol SA
64 Rue El Mortada,
Casablanca 02.
Tel: 212 2 25 52 92
Telex: CC24064
Fax: 212 2 25 49 92

NETHERLANDS
Air Parts International BV
PO Box 255, Kalkovenweg 12, 2400 AG
Alphen aan den Rijn
Tel: 31 (0) 172 422 455
Telex: 844 39564
Fax: 31 (0) 172 421 022

NEW ZEALAND
Nilsen Technologies
5 Porters Avenue, Eden Terrace,
PO Box 9613 Newmarket Auckland
Tel: 64 9 309 2464
Telex: -----
Fax: 64 9 309 2968

NORWAY
Metric A/S
Scandia Metric Group
Postboks 46, Holmlia
Nordasveien 5
N-1201 Oslo 12.
Tel: 47-22-61-1070
Telex: ---
Fax: 47-22-61-7492

PHILIPPINES
Avesco Marketing Corp.
PO Box 3531,
Manila
Tel: 63 2 912 8881
Telex: ---
Fax: 63 2 912 2999

PORTUGAL
Decada SA
Rua Margarida Palla. 11B
Miraflores, 1495 Alges
Lisboa.
Tel: 351 1 410 3420
Telex: 832 15515 ESPBPC
Fax: 351 1 410 1844

SAUDI ARABIA
Electronic Equipment Marketing Co.
PO Box 3750,
30th Street, Olaya Road
Riyadh 11481,
Tel: 966 1 477 1650
Telex: 928 401120 ZUHAIRSJ
Fax: 966 1 478 5140

SINGAPORE (1)
Wavetek Asia-Pacific Pte Ltd
51 Goldhill Plaza #14-04/05
Singapore 308900
Tel: 65 356 2522
Fax: 65 356 2523

SINGAPORE (2)
O'Connor's Singapore Pte Ltd
O'Connor's House,
98, Pasir Panjang Road,
Singapore 118516
Tel: 65 473 7944
Telex: -----
Fax: 65 472 4508

SOUTH AFRICA
Altech Instruments Pty Ltd
PO Box 2097,
Boksburg 1460
Transvaal
Tel: 27 11 914 4525
Telex: -----
Fax: 27 11 914 1475

SPAIN
Equipos y Systemas SA
c/o Apolonio Morales 13B,
28036 Madrid
Tel: 34 1 359 0088
Telex: 42856
Fax: 34 1 359 0298

SWEDEN
Kaliber AB
Maltesholmvägen 136,
Box 4443 S-165 15 Hasselby
Stockholm
Tel: 010 468 380 350
Telex: -----
Fax: 010 468 380 320

SWITZERLAND
Computer Controls AG
Probusweg 2, CH-8057 Zurich
Tel: 41 1 313 0616
Telex: ----
Fax: 41 1 313 0622

TAIWAN
Quatek Co., Ltd.
3rd Fl., Spring Plaza, 6,
Section 3,
Min Chuan E. Road.,
Taiwan, R.O.C.
Tel: 886 2 501 7065
Telex: ----
Fax: 886 2 509 5329

THAILAND
Trane International Co. Ltd
13 Soi Krungthonburi 4
Krungthonburi Road, Klongsan,
PO Box 6-49 BKK,
10600 Thailand.
Tel: 662 438 0038
Telex: -----
Fax: 662 438 6098

UNITED KINGDOM
Wavetek Calibration Division
52 Hurricane Way,
Norwich Airport,
Norwich, Norfolk NR6 6JB, England
Tel: 44 1603 404 824
Fax: 44 1603 483 670

UNITED STATES of AMERICA
- **Wavetek Calibration Division** (Service Only): c/o **Wavetek Communication Division**
5808 Churchman Bypass,
Indianapolis, IN 46203
Tel: 317 788 5960
Telex: 810 341 3226
Fax: 317 788 5999

- **North American Sales & Service**
9145 Balboa Avenue,
San Diego, CA 92123
Tel: 619 279 2200
Telex: -----
Fax: 619 450 0325

VENEZUELA
Onimex C.A.
2 Avenue Entre,
3 & 4 Transversal,
Los Palos Grandes,
Apartado Postal 61421
Caracas 1062,
Tel: 58 2 285 8641
Telex: -----
Fax: 58 2 285 8417

For customers in countries not listed, please contact WAVETEK CALIBRATION DIVISION in the United Kingdom:

Wavetek Calibration Division
52 Hurricane Way,
Norwich Airport,
Norwich, Norfolk NR6 6JB, England
Tel: 44 1603 404 824
Fax: 44 1603 483 670

MP MASTER
MA35658